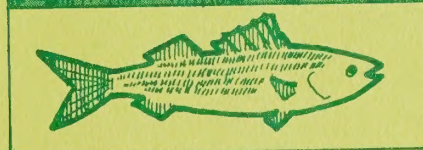


EXECUTIVE BOARD
RECOMMENDED PLAN



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DRAFT ENVIRONMENTAL MANAGEMENT PLAN FOR THE SAN FRANCISCO BAY REGION

PLAN RECOMMENDATIONS

APRIL 1978

This plan was prepared by the Association of Bay Area Governments with a grant and other assistance from the Environmental Protection Agency, in cooperation with Bay Area Air Pollution Control District, Metropolitan Transportation Commission, San Francisco Bay Regional Water Quality Control Board and Counties of the Bay Area with assistance of these agencies: ■ Army Corps of Engineers ■ California Air Resources Board ■ California Department of Health ■ California Department of Transportation ■ Council of Bay Area Resource Conservation Districts ■ Governor's Office of Planning and Research ■ Lawrence Berkeley Laboratory ■ Lawrence Livermore Laboratory ■ San Francisco Bay Conservation and Development Commission ■ State Water Resources Control Board ■ State Solid Waste Management Board ■ Wastewater Solids Study

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Association of Bay Area Governments

Hotel Claremont • Berkeley, California 94705 • (415) 841-9730

May 12, 1978

Dear Colleague:

After over 600 hours of public hearings, the Environmental Management Plan (EMP) is now ready for consideration and approval by the General Assembly. It has been a long and sometimes frustrating process, but out of it has come one very definite conclusion -- democracy is alive and well.

Through the democratic process of discussion and review, over 1500 pages of comments and amendments have been compiled to shape the EMP into a plan that is acceptable to virtually all local cities, counties and organizations. In the case of labor and industry, there has been a complete turnaround from their original position.

As you know, the most controversial recommendation considered was that of land-use controls for maintenance of air quality after 1985-87. Because of the concern for this element expressed by labor, business and many of our member governments, the proposal was excluded from the EMP. In the process, a number of relevant questions were raised about the proper Federal-State-local relationship; the social and economic impact of such controls; the degree of air quality improvement likely to be obtained and the suitability of including these controls in an air quality plan.

Environmental pollution requires a technical response, but as it is related to political structure, it also requires a governmental response. The EMP process from separate technical reports to a Draft Plan, a revised plan, now revised again, and adopted by the Executive Board is proof that the system works. The EMP is a plan that protects local control. And that's ABAG's job -- regional cooperation to solve regional problems while protecting local control. We have maintained local control and, yet, we have a plan that makes it possible for the Bay Area to comply with the Clean Air Act and the Federal Water Pollution Control Act.

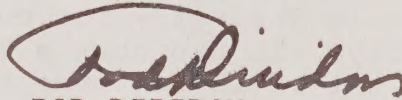
There is one more task left to accomplish. On June 10 in the Board of Supervisors Chambers in the County Administration Building in San Jose, the General Assembly will be convened. I urge you to attend. Unanimous approval of the EMP by the General Assembly delegates who represent 98% of the Bay Area population will demonstrate to the State the spirit of cooperation and solidarity with which the Plan is now accepted.

(more)

May 12, 1978

As President of ABAG, I thank you for your participation in this history-making process and hope you will join me on June 10 at 10 a.m.

Very sincerely,



ROD DIRIDON
President, ABAG

RD:mb
Enclosures



Association of Bay Area Governments

Hotel Claremont • Berkeley, California 94705 • (415) 841-9730

May 10, 1978

To: General Assembly Delegates and Alternates

From: Rod Diridon, President
Supervisor, Santa Clara County

Re: Environmental Management Plan Voting Procedures

I am sure by now that you appreciate, as I have come to during the past few months, the importance of the EMP for retaining local governments' role in environmental programs in the Bay Area. The plan is a very large document containing many policies and actions. We will need to ensure an expeditious, orderly review that provides maximum opportunity for each delegate or alternate to raise questions and vote on the provisions, plan policies and action measures. I am establishing a set of procedures intended to accomplish that purpose. These procedures were tested and proved effective by the Environmental Management Task Force and the Executive Board in its consideration of the plan.

1. ABAG Staff will begin the meeting with a short summary of how the draft plan was modified during the many stages of the process leading up to our approval at the General Assembly.

2. Consent Calendar

The Executive Board recommended plan will be the basic point of departure for our review. The board's recommendations will be considered as a consent calendar. The first item of business will be an opportunity for each General Assembly member to identify any part of the plan which he or she wishes to have removed from the consent calendar for questions, debate or amendment. Every item requested for consideration will be acted on to accept, amend or delete. Once we have completed those items, we will then have a preliminary Environmental Management Plan proposed for adoption by the General Assembly.

3. Following the actions under 2 above, we will certify the final ~~environmental~~ impact report, including responses to the comments on the DEIR that have been drafted by staff and included in the packet (Alternates should note that, to conserve resources, we have included only one set per jurisdiction of the responses to comments written on the DEIR and from the public hearings. If the delegate from your city or county will not be attending, please obtain the set of comments and responses from the voting delegate.) I have asked ABAG's legal counsel to prepare a resolution certifying the final EIR; it will be distributed at the meeting.

4. Following certification of the FEIR, the General Assembly will then take final action on the EMP, including adoption of the transmittal letter which is included in your copy of the Executive Board's plan recommendations.

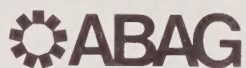
As you may have heard, we received more than 1,500 pages of comments and proposed amendments from public and private agencies and individual citizens on the Draft plan. Our staff has summarized and responded to these comments and amendments, which were considered by the Executive Board on April 20, when the board recommended the enclosed EMP for adoption by the General Assembly. Most of the comments had been considered previously by the Environmental Management Task Force.

The original amendments will be available at the General Assembly if questions arise. The summary of comments and responses totals 575 pages. In order to conserve resources, only a few copies of this summary (which is Volume III) have been printed. They are available on request from a delegate or alternate. If you would like a copy of this summary, please let our Executive Director, Revan Tranter, know, and he'll see that a copy is furnished to you.

AGENDA

Special General Assembly

ASSOCIATION OF BAY AREA GOVERNMENTS



TO APPROVE THE
ENVIRONMENTAL MANAGEMENT PLAN
JUNE 10, 1978
SANTA CLARA COUNTY BOARD OF SUPERVISORS CHAMBERS
SAN JOSE

<u>Item</u>	<u>RECOMMENDATION</u>
1. Roll Call	
2. General Assembly Summary Minutes, 2/8/78	Action
3. Explanation of procedures for approval of the plan.	Information
4. Summary of Executive Board recommended plan (ABAG staff presentation)	Information
5. Questions and statements from member governments.	Information
6. Preliminary Action on Policies and Actions of the Environmental Management Plan.	Action
7. Certification of Final Environmental Impact Report.	Action
8. Final adoption of Environmental Management Plan.	Action
9. Approval of Letter of Transmittal to State agencies.	Action
10. Adjournment	

AGENDA

Special General Assembly

ASSOCIATION OF BAY AREA GOVERNMENTS
OABAG

TO BE HELD AT
THE UNIVERSITY MICROFILMS
JULY 14, 1977
SANTA CLARA COUNTY BOARD OF SUPERVISORS
SANTA CLARA COUNTY

AGENDA

TIME

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|-----|------------------------------------|----------|
| 1 | Roll Call | 8:00 AM |
| 2 | Report of the Board of Supervisors | 8:15 AM |
| 3 | Report of the Board of Supervisors | 8:30 AM |
| 4 | Report of the Board of Supervisors | 8:45 AM |
| 5 | Report of the Board of Supervisors | 9:00 AM |
| 6 | Report of the Board of Supervisors | 9:15 AM |
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| 100 | Report of the Board of Supervisors | 8:45 AM |

SPECIAL GENERAL ASSEMBLY

OF THE ASSOCIATION OF BAY AREA GOVERNMENTS

TO APPROVE THE ENVIRONMENTAL MANAGEMENT PLAN FOR THE SAN FRANCISCO BAY AREA

This is the final opportunity for Bay Area cities and counties to determine for themselves the steps that should be taken to fulfill Federal and State water quality, air quality and solid waste laws before this plan is forwarded to State agencies.

Date — June 10, 1978

Time — 9:30 A.M. (Registration)

Place — Santa Clara County Board of Supervisors Chambers, County Government Center, 70 W. Hedding Street, San Jose

Free parking is available across Hedding Street from the center, (see map on back). Lunch will be provided for \$6.00. Please complete and return the registration coupon below.



REGISTRATION FOR JUNE 10 ABAG GENERAL ASSEMBLY

Name _____ Title _____

Representing _____

Are you a Delegate _____ Alternate _____ Other Elected Official _____ Staff _____

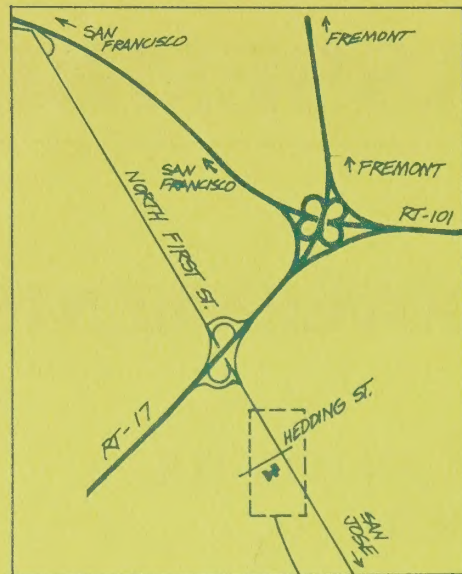
Address _____

_____ Phone _____

☐ Yes, I plan to have lunch. \$6.00 fee is enclosed. ☐ No, I cannot attend.

☐ Yes, I plan to attend but won't need lunch.

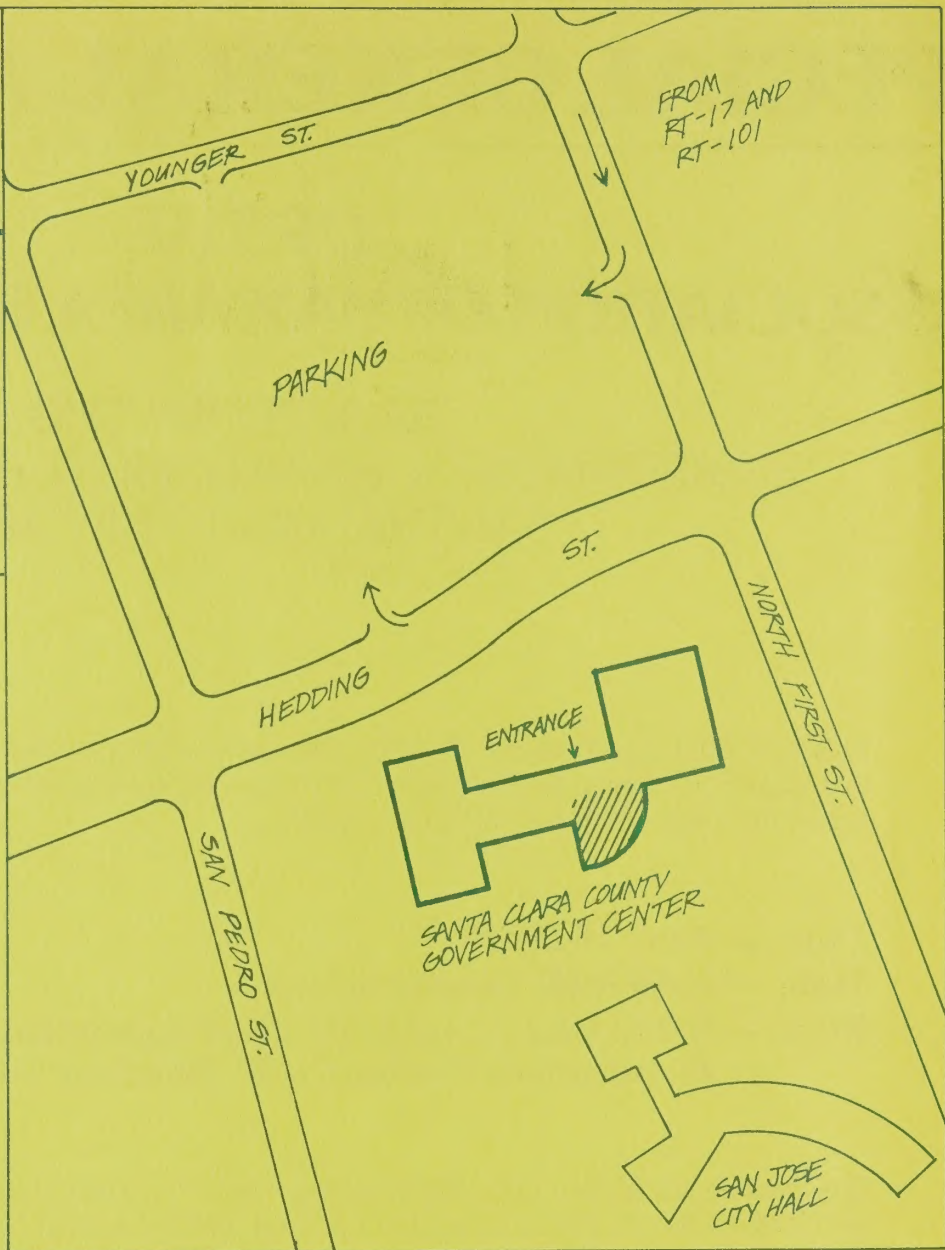
BY MAY 31, PLEASE SEND THIS COUPON TO ABAG OFFICES, HOTEL CLAREMONT, BERKELEY, CA 94705



FROM RT-17 OR RT-101
TAKE 1ST. STREET EXIT
SOUTH TO HEDDING ST.

SPECIAL ABAG GENERAL ASSEMBLY

June 10, 1978
9:30 a.m.



PROPOSED ENVIRONMENTAL MANAGEMENT PLAN TRANSMITTAL LETTER

(FOR ADOPTION BY GENERAL ASSEMBLY)

Dear (Agency Head: SWRCB, CARB, SWMB, OPR, DOH)*:

In accordance with the Federal and State statutes described therein, the Association of Bay Area Governments is pleased to submit for your endorsement, and transmittal to the Environmental Protection Agency, the Environmental Management Plan (EMP) for the Bay Area.

The plan is a complex and integrated document, encompassing air quality, water quality, water supply and solid waste. It was compiled over the past two years, with the assistance of many public bodies (including the Bay Area Air Pollution Control District and the Metropolitan Transportation Commission), at a cost exceeding \$4.3 million, in addition to several thousand hours of uncompensated overtime. It has involved an unprecedented degree of public participation: ranging from top-level guidance by a 46-member task force representing (among others) business, labor, environmentalists, urban and rural minorities and local governments, to several hundred round tables, meetings and formal public hearings. There have been more than 1,500 pages of public comments and proposed revisions.

As you know, attainment and maintenance of the necessary Federal and State standards for air, water and solid waste in a region such as the Bay Area is an immensely difficult, complicated and frequently controversial task. It is our firm opinion that the enclosed plan meets the mandate of Federal and State law. In the process, we have been obliged to accept all standards as given, without assessing their wisdom or efficacy. In the case of air quality, our experience has led us to believe that there may well be significant economic and social adjustments, and to request Congress to re-examine the "no-risk" philosophy and requirements of the Clean Air Act to make them reasonable for local governments seeking to comply. This statement is especially true with regard to heavy industrial sources seeking to locate in the region.

To reach the applicable standards, we have had the benefit of sophisticated modelling techniques apparently not yet available in other metropolitan areas of the country. We are particularly anxious, nonetheless, in the matter of air quality, that it be fully appreciated that considerable uncertainty necessarily exists.

*State Water Resources Control Board
California Air Resources Board
Solid Waste Management Board
Office of Planning and Research
Department of Health

An extremely broad range of possible actions was considered in order to reach the relevant standards. After thorough analysis, many were eliminated as either ineffective or inappropriate, while others, of course, have been found effective and are included. Achieving a mix of controls which allow attainment and maintenance of the standards, while at the same time being politically acceptable, was of course an exceedingly difficult task, whose magnitude could be discerned only by experience, as we and the news media discovered. As you know, the most controversial recommendation considered was that of land use controls for maintenance of air quality after 1985-87. After many months' discussion, and the expression of substantial concern by labor, business and many of our member governments, the proposal was excluded from the EMP by the Task Force and the Executive Board. In the process, a number of valuable questions were raised, including the Federal-State-local relationship, the social and economic impact of such controls, the degree of air quality improvement likely to be obtained, and the suitability of including these controls in an air quality plan.

The Association of Bay Area Governments will continue to bear a major responsibility, under appropriate Federal and State statutes, regulations and designations, as this region reaches and maintains all necessary standards for air quality, water quality and solid waste as provided in this plan and its continuing planning process. In the work to be undertaken during this phase of the Environmental Management Plan, we shall pay particular attention to the need to reassess the plan based upon the firm conviction that continued economic growth is as vital to our citizens as their health and environmental protection.

Like your own, our aims are high and our burden substantial. We need your cooperation and understanding, and we pledge ours in return.

Sincerely,

Rod Diridon, President
Supervisor, Santa Clara County

Approved by the General Assembly of the Association of Bay Area Governments June 10, 1978.

Revan A. F. Tranter
Secretary-Treasurer

Introduction

This is an update of the Environmental Management Plan. A draft of the plan was published in December. That was the 550-page document consisting of recommendations (blue pages) and draft explanatory material (white pages). The plan has now been through three steps of its approval process. In the first step, the Environmental Management Task Force modified the draft plan and then approved the modified version. Second, the Regional Planning Committee made additional changes. Third, on April 20, the Executive Board further modified the plan and then approved it. The recommendations in the Executive Board's plan are described in the following pages.

Executive Board recommendations will be considered by the ABAG General Assembly on June 10. After approval by the General Assembly, the plan will be submitted to the State and then to the Federal Environmental Protection Agency. The submittal will include explanatory material (the white pages of the December draft, modified to be consistent with the recommendations).

The plan is intended to satisfy requirements of the following laws:

- o The Federal Water Pollution Act
- o The Federal Clean Air Act (only the requirements for photochemical oxidant or "smog")
- o State Solid Waste laws

The recommendations in the plan cover six topics:

- o Water Quality
- o Water Supply
- o Solid Waste
- o Air Quality
- o Continuing Planning Process
- o Affirmative Action

The recommendations for each topic comprise the rest of this document. The following table summarizes the recommendations in the December draft and shows how they have been changed so far.

April 21, 1978

DRAFT PLAN AND CHANGES TO DATE

	DRAFT PLAN RECOMMENDATIONS	CHANGES BY ENVIRONMENTAL MANAGEMENT TASK FORCE	CHANGES BY REGIONAL PLANNING COMMITTEE	CHANGES BY EXECUTIVE BOARD
WATER QUALITY	Create San Francisco Bay-Delta Research Program.	Create council to consider need for program.	No major changes.	No major changes.
	Re-establish recreational and commercial harvesting of shellfish from the bay.	No major changes.		
	Carry out counties' surface runoff management plans.	No major changes.		
	Continue construction of municipal and industrial sewerage facilities.	No major changes.		
	Treat industrial wastes going to municipal sewers based on discharge requirements for municipal treatment plant.	No major changes.		
	Prohibit vessel waste discharge to parts of bay.	Conduct hearings on prohibitions.		
	Require vessel pump-out and on-shore toilet facilities at all marinas.	No major changes.		
	Require public management of new wastewater disposal systems for unsewered areas.	Replace public management with periodic inspection and establishment of procedures to ensure maintenance.		
	Monitor and report on oil and chemical spill prevention and clean-up.	Establish task force to investigate non-petroleum spills in the bay. ABAG consultant to report on inland chemical spills.		
WATER SUPPLY	Establish a Water Management Coordinating Committee	Make committee informal and voluntary. Request committee to consider interagency water transfers, water restrictions during drought, new water projects, a drought contingency plan, groundwater management, domestic water quality.	No major changes.	No major changes.
	Carry out region-wide, moderate water savings programs.	No major changes.		
	Construct cost-effective water reclamation projects.	No major changes.		

	DRAFT PLAN RECOMMENDATIONS	CHANGES BY ENVIRONMENTAL MANAGEMENT TASK FORCE	CHANGES BY REGIONAL PLANNING COMMITTEE	CHANGES BY EXECUTIVE BOARD
SOLID WASTE	Carry out county solid waste plans.	No major changes.	No major changes.	No major changes.
		Add policy of 30% reduction in municipal wastes going to landfill by 1982.		
	Carry out various steps to reduce the amount of waste generated, increase recovery and recycling, improve the disposal of solid wastes, increase the possibilities of recovering large amounts of energy from solid waste, and improve the handling and disposal of hazardous wastes and sewage sludge.	No major changes.		Delete reference to mandated deposit bottle program.
AIR QUALITY	Use "best available control technology" on new and existing hydrocarbon sources, including using paints with water base and/or high solids content and closed systems for handling organic liquids.	Use "available control technology" on existing sources giving reason- able time to pay for new equipment and giving consideration to other effects of requiring such controls in each case.	No major changes.	No major changes.
	Continue to review new and modified industrial and commercial sources (requiring low emissions or sometimes prohibiting such sources on a case-by-case basis).	Use "lowest achievable emission rate" for new or modified sources. Continue to review new and modified sources, using "offsets" and other provisions of law where possible in lieu of prohibitions. (An "offset" is a reduction in emissions from existing industry or commerce by an amount greater than the emissions from a new industry. The reduction is paid for by the new industry.)		Develop procedures other than offset to permit industrial growth and not penalize this region with respect to other regions.
	Require 50% cleaner vehicles than called for in 1977 Clean Air Act Amendments	No major changes.		No major changes.
	Carry out program of inspection and maintenance of all vehicles to insure that pollution con- trols are operating properly.	Make recommendation Statewide.		
	Require exhaust controls on all existing, large gasoline trucks.			
		Add condition that if State or Federal requirements for vehicle controls are delayed, this region should be given extensions beyond the Federal compliance dates.		

AIR QUALITY (CONT.)	DRAFT PLAN RECOMMENDATIONS	CHANGES BY ENVIRONMENTAL MANAGEMENT TASK FORCE	CHANGES BY REGIONAL PLANNING COMMITTEE	CHANGES BY EXECUTIVE BOARD
	Increase tolls on bridges.	Add condition that increases should only be made if needed to finance public transit service improvements.	No major changes.	Delete (recommended by Metropolitan Transportation Commission [MTC]).
	Impose regional parking tax.	Delete.		No major changes.
	Provide preferential parking for carpools and vanpools.	No major changes.		
	Provide additional transit service.	Replace with three-fold transit improvement strategy (recommended by MTC): o MTC to adopt service improvement objectives that can be financed by existing resources o MTC to continue efforts to identify need for additional services and pursue services if justified o 35% increase in ridership if there is increased Federal and State funding.		Delete reference to 35% (recommended by MTC)
	Increase bus and carpool lanes and ramp metering.	No major changes.		No major changes.
	Create an auto control zone in San Francisco central business district.	Move to continuing planning process and change to central business districts in general.		Delete from continuing planning process.
	Provide more ride sharing services such as jitneys and vanpools and develop more extensive bicycle systems.	No major changes.		No major changes.
	Alter regionwide development patterns to reduce urban sprawl and reduce automobile travel.	Move to continuing planning process. (See continuing planning process below.)		Remove reference to land use from continuing planning process.
		Identify for Executive Board decision three categories of controls to provide needed emission reductions after 1985: o Small gasoline engines o Off-road vehicles (for example, construction vehicles) o Transportation controls such as gas tax, road tolls, and additional transit.		Carry out in 1990, or after, one or more of the following to maintain oxidant standards: o Controls on small gasoline engines o Controls on off-highway vehicles o Additional transit o More stringent vehicle emission controls

	DRAFT PLAN RECOMMENDATIONS	CHANGES BY ENVIRONMENTAL MANAGEMENT TASK FORCE	CHANGES BY REGIONAL PLANNING COMMITTEE	CHANGES BY EXECUTIVE BOARD
CONTINUING PLANNING PROCESS	Carry out continuing planning process for water quality, water supply, solid waste, and air quality and update the plan regularly. Process includes memorandums of agreement with Regional Water Quality Control Board, State Water Resources Control Board, Bay Area Air Pollution Control District, and Metropolitan Transportation Commission for joint planning.	Move continuing planning for water supply, solid waste, and air quality to an addendum to plan. (This put land use in the addendum.)	Put continuing planning for water supply, solid waste, and air quality back into continuing planning process. Keep land use in the addendum.	Remove addendum from plan. Make update annual if necessary. Remove reference to land use from continuing planning process.
	Continue Environmental Management Task Force.	No major changes.	No major changes.	Create an appropriate body consisting of a majority of local elected officials plus citizens with varied backgrounds to conduct continuing planning process.
LEGISLATIVE RECOMMENDATIONS	Provide funds to State Department of Health to regulate Shellfishing	No major changes.	No major changes.	Call for Congress to reexamine Clean Air Act requirements.
	Enact other legislation to carry out previously mentioned recommendations.			
AFFIRMATIVE ACTION	Carry out a number of steps to improve affirmative action in carrying out the Environmental Management Plan.	No major changes.	No major changes.	Change language to remove inference that new affirmative action units would be set up in existing organizations.

Water Quality Management Plan

recommendations

Water Quality Management Plan recommendations

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL * COST/YEAR OF RECOMMENDED ACTION	PORTION OF * TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 1 IMPROVE UNDERSTANDING OF BAY-DELTA ESTUARINE SYSTEM AND THE FATE AND EFFECTS OF POLLUTANTS ENTERING IT								
<div> <p>* This column presents annualized costs. The annualized cost is the amount of money per year that would amortize the total cost of the program over the period 1978-2000 at a 6-3/8% interest rate.</p> </div>								
Action 1.1 Establish San Francisco Bay Delta Research Advisory Council.	Further definition of pollution cause and effect relationships is needed as a basis for developing better standards for protection of water quality. The Council will include representatives from the Regional Water Quality Control Board, the State Water Resources Control Board, ABAG, BCDC and Delta Advisory Council, county surface runoff lead agencies, discharging agencies, agencies involved in water quality research and experts in the various aspects of	RWQCB	August, 1978.	Porter-Cologne Act	\$30,000	\$30,000		Voluntary membership and State and Regional Board action.
	water quality research and monitoring and public and private interest groups. Staff support for the Council will be provided by RWQCB and SWRCB.							
Action 1.2 Conduct receiving water monitoring program for San Francisco Bay.	This two-year program was designed by the San Francisco Bay Advisory Committee under the direction of SWRCB and RWQCB. The results of the program will be used to shape dischargers monitoring requirements including pretreatment in the future. The program should evaluate the need for a permanent centralized monitoring and research organization after fully exploring coordination of laboratory and field work presently performed by dischargers.	RWQCB/SWRCB/SFBDRC	June, 1978	Porter-Cologne Act	\$1 million each year for 2 years	.0	Federal "201" funds, State and local funds	RWQCB and SWRCB action

Caltrans = California Department of Transportation;

ABAG = Association of Bay Area Governments

EPA = Environmental Protection Agency;

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> <ul style="list-style-type: none"> o No impacts. <u>Water Quality</u> <ul style="list-style-type: none"> o Would improve water quality indirectly - provides data to make informed decisions. <u>Physical Resources</u> <ul style="list-style-type: none"> o Would benefit physical resources indirectly as water quality is improved, e.g., the aquatic community, flora, fauna and recreation. <u>Energy</u> <ul style="list-style-type: none"> o No impacts. <u>Amenities</u> <ul style="list-style-type: none"> o Would affect amenities indirectly; highly dependent on nature of actions taken as a result of monitoring data. 	<u>Financial</u> <ul style="list-style-type: none"> o Costs would be met by participants: dischargers, counties, RWQCB, SWRCB, and EPA. <u>Institutional</u> <ul style="list-style-type: none"> o May result in higher level of cooperation among agencies and dischargers o May improve accuracy and credibility of research and monitoring results. 	<u>Consumer Expenditures</u> <ul style="list-style-type: none"> o No impact 	<u>Housing Supply</u> <ul style="list-style-type: none"> o No impacts. <u>Physical Mobility</u> <ul style="list-style-type: none"> o No impacts. <u>Health and Safety</u> <ul style="list-style-type: none"> o Might uncover health and safety problems as a result of research or monitoring o Would affect decisions on water quality that affect public health. <u>Sense of Community</u> <ul style="list-style-type: none"> o No impact. <u>Urban Patterns</u> <ul style="list-style-type: none"> o No impact. <u>Equity</u> <ul style="list-style-type: none"> o No impact.
<div style="border: 1px solid black; padding: 5px; text-align: center;"> *IMPACTS NOTED FOR THE POLICY ARE COMMON TO ALL ACTIONS </div>			

Impacts same as noted for Policy 1.

Financial

Direct Public Cost of implementation

- o \$30,000 per year

Other institutional impacts are the same as noted for Policy 1.

Impacts same as noted for Policy 1.

Impacts same as noted for Policy 1.

Impacts same as noted for Policy 1.

Financial

Direct Public Cost of Implementation

- o \$1,000,00/year for two years

Other institutional impacts are the same as noted for Policy 1

Impacts same as noted for Policy 1.

Impacts same as noted for Policy 1.

SWRCB = State Water Resources Control Board

RWQCB = Regional Water Quality Control Board

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 1.3 Evaluate and establish research goals.		SWRCB and RWQCB advised by SFBDRAC	December, 1979 and annually thereafter.		\$15,000	\$15,000	Federal 208 or State program funds.	RWQCB AND SWRCB action
Action 1.4 Disseminate through the media and other sources an annual "State of the Waters" report.	A summary of current state of bay and delta waters.	RWQCB advised by SFBDRAC	August, 1979 and annually thereafter.		\$20,000	\$20,000	State program funds	
Action 1.5 Integrate water quality data with existing regionwide data management system.		RWQCB in cooperation with ABAG	Start by December, 1978.		\$19,000	\$19,000	State and EPA grants	

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
Impacts same as noted for Policy 1.	Impacts same as noted for Action 1.1	Impacts same as noted for Policy 1.	Impacts same as noted for Policy 1.
Impacts same as noted for Policy 1.	<u>Financial</u> Direct Public Cost of Implementation <ul style="list-style-type: none"> o (1979-2000) \$20,000/year (labor and materials for report production and data compilation) <u>Institutional</u> <ul style="list-style-type: none"> o Would provide means of providing monitoring program results to the public. o Would provide foundation of public support for regulatory actions. 	Impacts same as noted for Policy 1.	Impacts same as noted for Policy 1.
Impacts same as noted for Policy 1.	<u>Financial</u> Direct Public Cost of Implementation <ul style="list-style-type: none"> o (1980-2000) \$2,000,000/year (estimate of total Bay Area monitoring costs). o Costs to be borne by fees from dischargers. Other institutional impacts are the same as noted for Policy 1.	Impacts same as noted for Policy 1.	Impacts same as noted for Policy 1.

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
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Policy 2

ESTABLISH CONTINUING PLANNING PROCESS FOR WATER QUALITY MANAGEMENT.

(Actions appear in Continuing Planning Process Tables.)

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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The Continuing Planning Process in and of itself would not have impacts. The monitoring and research results, and assessment of the impacts and effectiveness as policies and actions of the Water Quality Management recommendations are carried out, would provide the basis for future decisions. The potential impacts of carrying out the Continuing Planning Process recommendations would be similar to those identified for this initial phase of management planning.

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
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Policy 3

FACILITATE THE RE-ESTABLISHMENT OF RECREATIONAL AND COMMERCIAL SHELLFISH HARVESTING IN THE BAY AS ALLOWED BY WATER QUALITY

Billions of dollars have already been committed for improvements to sewage and industrial waste disposal systems to meet State and Federal requirements. Relatively modest additional expenditures on administrative and regulatory actions could re-establish recreational and commercial shellfishing.

Action 3.1 Conduct a preliminary survey and assessment of shellfish beds in the Bay.	Major shellfish beds suitable for recreational harvesting would be identified and assessed. The types and sources of contaminants affecting these beds would also be identified.	RWQCB, State Dept. of Health, Dept. of Fish and Game	Feb. '78		\$50,000	\$50,000	EPA and/or State grants	
Action 3.2 Establish a systematic monitoring and sampling program of selected shellfish beds.	Based on findings from 3.1 a selected number of shellfish beds would be monitored and sampled for bacterial contamination over at least a 12-month period.	RWQCB, State Dept. of Health and county health departments.	June '78		\$200,000	\$200,000	Federal grants, State funds from shellfish harvesting license fees	

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> <ul style="list-style-type: none"> o No direct impacts. <u>Water Quality</u> <ul style="list-style-type: none"> o May provide basis for improving water quality. o Would provide data for making informed decisions. <u>Physical Resources</u> <ul style="list-style-type: none"> o Would permit use of a valuable and renewable resource. <u>Energy</u> <ul style="list-style-type: none"> o No direct impacts. <u>Amenities</u> <ul style="list-style-type: none"> o Would provide an additional recreational source that is inexpensive and convenient for Bay Area residents. o Would provide Bay Area residents with high quality and fresh shellfish in restaurants and markets. 	<u>Financial</u> <ul style="list-style-type: none"> o Program would require personnel and operating funds. o Cost would be met by Federal, State and private sources. <u>Institutional</u> <ul style="list-style-type: none"> o Would require the cooperation of State and local agencies such as Departments of Health & Fish and Game, County Health Depts. and RWQCB. o May require additional staff resources to survey, monitor and patrol shellfish beds and establish criteria for commercial shellfishing. 	<u>Production of Goods and Services</u> <ul style="list-style-type: none"> o Would provide employment for approximately 5 persons in government agencies. o Would provide employment for an unestimated number of persons engaged in the shellfish industry. o Would provide a fresh and high quality product for restaurants and markets. <u>Income and Investment</u> <ul style="list-style-type: none"> o Initial capital investment by private firms that want to establish a shellfish industry. o Initial investment of governmental funds to facilitate the establishment of shellfishing. <u>Consumer Expenditures</u> <ul style="list-style-type: none"> o A small license fee for recreational shellfishing. 	<u>Housing Supply</u> <ul style="list-style-type: none"> o No impact. <u>Physical Mobility</u> <ul style="list-style-type: none"> o Would provide a unique source of local recreation without having to travel out of the region. <u>Health and Safety</u> <ul style="list-style-type: none"> o If properly monitored and controlled, it would reduce risks of people getting ill from eating shellfish they harvested themselves. There is little or no control at present. o Would also reduce the illegal marketing of shellfish caught in the Bay if depuration/relaying facilities enable commercial interests to produce a safe product. <u>Sense of Community</u> <ul style="list-style-type: none"> o No impact. <u>Urban Patterns</u> <ul style="list-style-type: none"> o May encourage better public access to tidal lands and flats around the Bay. <u>Equity</u> <ul style="list-style-type: none"> o Impacts on special population groups (low and moderate income, minorities, etc.) depends on recipients of employment opportunities.
Impacts same as noted for Policy 3	Impacts same as noted for Policy 3	Impacts same as noted for Policy 3	Impacts same as noted for Policy 3
Impacts same as noted for Policy 3	Impacts same as noted for Policy 3	Impacts same as noted for Policy 3	Impacts same as noted for Policy 3

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 3.3 Establish an agreement between State Dept. of Health and Dept. of Fish and Game for patrolling shellfish beds.	If findings from 3.2 indicate recreational shellfish harvesting is safe, then the Department of Fish and Game would have to patrol the beds, keeping people off unapproved and conditionally approved beds while allowing harvesting in approved beds.	State Dept. of Fish and Game, State Dept. of Health			\$100,000	\$100,000	State funds from shellfish harvesting license fees.	
Action 3.4 Establish criteria for commercial shellfishing in the bay and evaluate methods of harvesting.	The State Department of Health would establish the type and extent of pilot studies and routine monitoring required as prerequisites to any approval of commercial shellfishing in the Bay.	State Dept. of Health.	August '78		To be determined	To be determined	State financing to augment Health Dept. budget	

Policy 4

ENSURE THAT WATER POLLUTION FACILITIES OR MEASURES EFFECTIVELY PROTECT WATER QUALITY.

Action 4.1 Issue and update monitoring requirements appropriate to permit conditions and in conformance with region-wide monitoring network.	As the program of treatment plant construction winds down the emphasis in water pollution control will shift from construction to operation and monitoring.	RWQCB.	Continuous.	Porter-Cologne Act.	\$160,000	-0-	State appropriation.	EPA review.
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ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
Impacts same as noted for Policy 3	Impacts same as noted for Policy 3	Impacts same as noted for Policy 3	Impacts same as noted for Policy 3
Impacts same as noted for Policy 3	Impacts same as noted for Policy 3	Impacts same as noted for Policy 3	Impacts same as noted for Policy 3
<u>Air Quality</u> o No impact. <u>Water Quality</u> o Would maintain receiving water quality by ensuring highest possible quality of treatment plant discharge. <u>Physical Resources</u> o Would benefit aquatic resources as an indirect result of improved water quality. <u>Energy</u> o No impacts. <u>Amenities</u> o No impacts.	<u>Financial</u> o Refer to actions below. <u>Institutional</u> o Would ensure that sewerage service agencies are protecting water quality.	<u>Production of Goods and Services</u> o Minor employment increase. o Would ensure that industries are protecting water quality. <u>Income and Investment</u> o Wages would be paid to persons implementing this policy. <u>Consumer Expenditures</u> o Refer to actions below.	<u>Housing Supply</u> o No impact. <u>Physical Mobility</u> o No impact. <u>Health and Safety</u> o Would assure protection of public health through proper operation and performance of facilities <u>Sense of Community</u> o No impact. <u>Urban Patterns</u> o No impact. <u>Equity</u> o No impact.
Impacts same as noted for Policy 4.	<u>Financial</u> Direct Public Cost of Implementation o (1978-2000) \$160,000/year (personel costs for setting monitoring requirements). Other institutional impacts are the same as noted for Policy 4.	<u>Production of Goods and Services</u> o Minor employment increase for agency. <u>Income and Investment</u> o Same as Policy 4. <u>Consumer Expenditures</u> o No impact.	Impacts same as noted for Policy 4.

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 4.2 Monitor performance of municipal and industrial wastewater systems in accordance with monitoring requirements.		Sewerage agencies and individual private companies.	Continuous.		Undetermined	-0-	Local and private funds.	RWQCB review.
Action 4.3 Publish annual report summarizing results of dischargers self-monitoring programs.		RWQCB and local agencies.	Annually.		\$32,000	\$32,000	State	

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
Impacts same as noted for Policy 4.	<u>Financial</u> Direct Public Cost of Implementation <ul style="list-style-type: none"> o (1978-2000) \$182,700/year (cost to RWQCB for monitoring program). o Unknown costs for agencies. o Direct costs of laboratory and sampling equipment to be borne by discharger. o Costs would depend on specific monitoring requirements. o Personnel costs to be incurred by dischargers. Other institutional impacts are the same as noted for Policy 4.	<u>Production of Goods and Services</u> <ul style="list-style-type: none"> o Employment increase for dischargers--minor per discharger. <u>Income and Investment</u> <ul style="list-style-type: none"> o Dischargers would pay wages to samplers and laboratory personnel. <u>Consumer Expenditures</u> <ul style="list-style-type: none"> o User charges may be increased to offset any increase in public service agency monitoring costs. o Prices of goods and services may increase if industries' monitoring costs are passed on to consumers. Direct Private Cost of Implementation <ul style="list-style-type: none"> o Costs to private industry cannot be estimated. 	Impacts same as noted for Policy 4.
<u>Water Quality</u> <ul style="list-style-type: none"> o No impacts. <u>Physical Resources</u> <ul style="list-style-type: none"> o No impacts. Other environmental impacts are the same as noted for Policy 4.	<u>Financial</u> Direct Public Costs of Implementation <ul style="list-style-type: none"> o (1979-2000) \$35,000/year (labor and materials for report production). <u>Institutional</u> <ul style="list-style-type: none"> o Would provide means of disseminating monitoring program results. o Would provide mechanism of communication with public. Other institutional impacts are the same as noted for Policy 4.	Impacts same as noted for Action 4.1	<u>Health and Safety</u> <ul style="list-style-type: none"> o No impact. Other social impacts are the same as noted for Policy 4.

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
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Policy 5

PROVIDE FACILITIES NEEDED FOR MUNICIPAL SEWERAGE SERVICE AND WATER QUALITY PROTECTION.

The 20-year project list in Section J of this chapter provides wastewater treatment facilities to serve a Bay Area population of 6.1 million in the year 2000. Inclusion on the list in Section J establishes that such projects may be eligible for future State and Federal assistance. Each such project would remain subject to the environmental impact reporting requirements of the National Environmental Policy Act and the California Environmental Quality Act, and would also be subject to review under the requirements of Office of Management and Budget Circular A-95 prior to State and Federal funding action. Therefore, inclusion on the list does not automatically constitute prior endorsement of the Association of Bay Area Governments and State and Federal funding agencies.

The 20-year project list will be updated annually as part of the continuing environmental management planning process. Future 20-year project lists may include changes in the timing of projects as additional information becomes available about population and employment growth trends in the region.

Growth and secondary effects of growth may have adverse impacts, particularly on air quality, as well as some positive impacts. So long as the capacities and timing of sewage treatment facilities on the 20-year project list are consistent with the Environmental Management Plan, the construction of wastewater facilities should accommodate growth planned for, but should not induce the kinds of impacts that could be attributed to construction of wastewater treatment facilities. Quantified estimates of impacts are expressed as ranges to indicate the differences under high and low population assumptions.

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> <ul style="list-style-type: none"> o Temporary dust problems during facility construction. o Poorly designed or operated facilities may cause local odor problems. o Localized potential increases in carbon monoxide levels. <u>Water Quality</u> <ul style="list-style-type: none"> o At minimum would result in removal of suspended solids, some toxicants, some nutrients, most bacteria and most oxygen demanding substances. o Treatment plants would provide high bacteria and virus removal, nutrient removal and/or reduction of toxicants and resistant organic compounds. o Growth accommodated would increase surface runoff by increasing the amount of impervious surfaces. o Reclaimed wastewater would increase supplies of water for agricultural, industrial, park and golf course irrigation. <u>Physical Resources</u> <ul style="list-style-type: none"> o Water quality improvements benefit fish and wildlife resources. o Would increase sewage solids volumes and would require coordination with regional Wastewater Solids Study plan results. o Consumes construction materials (mineral resources). o Would result in disruptions of adjacent land uses and reduced supply of resources (e.g., agricultural lands). o Growth accommodated would consume between 190,000 and 250,000 acres of land by 2000 or 50-65% of land available for development. o May reduce wildlife habitats through encroachment or filling of marshes, mudflats. o May reduce the supply of land available for recreation uses. <u>Energy</u> <ul style="list-style-type: none"> o Consumes electricity, gas and diesel fuel during construction. o Commits to energy use for treatment plant operation. o Advanced physical-chemical plants some significant amounts of energy. o Could result in energy production benefits when co-combustion projects (sludge and refuse) are undertaken at the plant site. <u>Amenities</u> <ul style="list-style-type: none"> o Facility construction, operation and design may have adverse visual, odor and noise effects. 	<u>Financial</u> <p>Direct Public Cost of Implementation</p> <ul style="list-style-type: none"> o Capital (20 year construction estimate) \$2.4 billion. o Operation and maintenance estimate \$122 million/year in 1995. <p>Fiscal Effects on Local Governments</p> <ul style="list-style-type: none"> o Local governments and agencies would have to finance the local share of construction at a minimum of 12.5% of total costs or an estimated \$19 million (annualized) and all of \$71 million (annualized) operation and maintenance costs. o Specific fiscal effects depend on choice of financing mechanisms. Increased user charges, connection fees and property taxes in service areas would increase revenues of sewerage service agencies. o Indirect fiscal impacts would result from costs to provide public services (police, fire, etc.) to new development. <u>Institutional</u> <ul style="list-style-type: none"> o Would require growth of existing agencies to provide expanded sewerage services. o Would require additional staff resources to provide public services to new development. o Would enable local governments to meet requirements of Federal and State standards. o Some projects may conflict with local general plans. 	<u>Production of Goods and Services</u> <ul style="list-style-type: none"> o Employment - approximately 35,000 temporary and 700 permanent jobs would result from facility construction and operation. o Could permit influx of industrial/commercial businesses that would use municipal sewers. o In some cases would permit industry to stay rather than be closed by stringent direct discharge requirements. <u>Income and Investment</u> <ul style="list-style-type: none"> o Indirect increase in plant operators and construction workers wages. o Facility construction will compete for funds on money markets. <u>Consumer Expenditures</u> <ul style="list-style-type: none"> o Increased costs to consumers for connection to sewerage system. o Operation and maintenance costs are paid for by user charges. o Property taxes may increase in service areas to retire bonds issued to finance construction. 	<u>Housing Supply</u> <ul style="list-style-type: none"> o Treatment facilities would accommodate approximately between 700,000 and 900,000 new housing units in the region by the year 2000. o Provision of sewerage service in unsewered areas could increase the supply and costs of housing in those areas. <u>Physical Mobility</u> <ul style="list-style-type: none"> o Localized, short term disruptions in mobility may result during construction. o Congestion may result unless transportation improvements are made to serve development accommodated by improvements in wastewater facilities. <u>Health and Safety</u> <ul style="list-style-type: none"> o Reduced health risks should result where discharges of poorly treated wastes are eliminated. o Indirect health benefits from water quality improvements. o Flood, subsidence, tsunami, landslide and seismic hazards may constrain the location, design and operational reliability of facilities. o Growth accommodated may affect local governments' effort to direct development away from hazardous areas. <u>Sense of Community</u> <ul style="list-style-type: none"> o Character of neighborhoods and communities may change. o Provision of sewerage services in rural areas tends to change the character of rural communities to urban/suburban. <u>Urban Patterns</u> <ul style="list-style-type: none"> o Provision of sewerage services based on compact growth assumptions encourages infilling. o Collection systems in unsewered areas outside of urban service areas may be in conflict with local general plans. <u>Equity</u> <ul style="list-style-type: none"> o Sewer service charges are based on use and not ability to pay. o User charges, connection fees and property tax increases would impact low and moderate income households differently than high income households. o Development and housing impacts may affect the ability of low and moderate income families to afford adequate housing.

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 5.1 Expand capacity of existing facilities and provide new facilities for municipal sewage collection, treatment and disposal according to the 20 year project list. Level of treatment to depend on State and Federal regulations.	Existing sewerage service facilities must be expanded to service the needs of growing communities. Needed facilities are shown in the 20 year project list contained in Section J, updated annually. (This action would include Action 16.1, 16.3 and 16.4 of the Solid Waste Management Plan.)	Sewerage agencies.	See Section J.	WPCA, Porter-Cologne Act, enabling legislation for cities and special districts	\$240,000,000	-0-	Federal & State grants + user charges + assessments.	RWQCB can impose sanctions for non-compliance with permit conditions.
Action 5.2 Issue and update limits for municipal discharges in conformance with EMP.		RWQCB.	Continuous.	Federal Water Pollution Control Act Amendments.	\$94,000	-0-	State appropriation.	EPA review.

Policy 6

ENCOURAGE CONSOLIDATION OF TREATMENT FACILITIES AND DISCHARGE OF WASTEWATER TO WELL-MIXED RECEIVING WATERS WHERE ECONOMICALLY JUSTIFIED AND ENVIRONMENTALLY DESIRABLE.

Action 6.1
Review all proposed facilities for consistency with above policy.

SWRCB, RWQCB, Bay Area 208 agency and ABAG in A-95 advisory capacity.	Continuous.	Federal Water Pollution Control Act Amendments.	\$4,000	\$4,000	State appropriation & EPA grants. Facilities must be consistent with plan to be grant eligible.
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ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
Impacts same as noted for Policy 5.	Impacts same as noted for Policy 5.	Impacts same as noted for Policy 5.	Impacts same as noted for Policy 5.
Impacts same as noted for Policy 5.	Impacts same as noted for Policy 5.	Impacts same as noted for Policy 4.	Impacts same as noted for Policy 4.
<u>Air Quality</u> <ul style="list-style-type: none"> o Temporary dust problems during construction of plants and interceptors. <u>Water Quality</u> <ul style="list-style-type: none"> o May improve plant reliability and water quality if inefficient small plants eliminated. o May improve local water quality if discharges to poorly mixed waters eliminated. <u>Physical Resources</u> <ul style="list-style-type: none"> o May improve marine or water oriented resources if water quality is improved. o Might lead to greater use of construction resources than alternative plan--or, depending on plan, may save resources. o Would benefit fish and wildlife resources in areas where water quality is improved (especially poorly mixed areas). o Plants, interceptors and concentration of discharge points in new areas of the Bay could disrupt fish and wildlife resources and ecological balance in marshes. <u>Energy</u> <ul style="list-style-type: none"> o Could require energy to move sewage to new treatment locations but may save some energy in treatment. <u>Amenities</u> <ul style="list-style-type: none"> o Facility and interceptor construction, operation and design may have adverse visual, odor and noise effects. 	<u>Financial</u> <ul style="list-style-type: none"> o Would directly determine grant eligibility of proposed alternative. o Would eliminate grant funding for non-approved projects. o May produce economies of scale in consolidation of facilities. o Would broaden service area and financial base for single facility. <u>Institutional</u> <ul style="list-style-type: none"> o May eliminate or require consolidation of some sewage treatment agencies. o At times would require plans of low institutional acceptability--resulting in resistance. o Would require high level of technical staffing at ABAG. o Would provide enforcement for regional policy. 	<u>Production of Goods and Services</u> <ul style="list-style-type: none"> o Employment - one large facility and service agency may require fewer employees than two component facilities/agencies. o Change in construction employment for new construction vs. renovation is indeterminable. <u>Income and Investment</u> <ul style="list-style-type: none"> o Impacts will depend upon specific situation. <u>Consumer Expenditures</u> <ul style="list-style-type: none"> o Changes in costs of sewerage services (increases vs. decreases) would depend on specific situation. 	<u>Housing Supply</u> <ul style="list-style-type: none"> o Number of housing units accommodated by consolidations would vary (as would cost effects). <u>Physical Mobility</u> <ul style="list-style-type: none"> o Localized, short term disruptions in mobility may result during construction, especially of interceptors. <u>Sense of Community</u> <ul style="list-style-type: none"> o Impacts would be highly dependent on specific actions taken to consolidate facilities. <u>Urban Patterns</u> <ul style="list-style-type: none"> o Effects on land use would depend on actions taken to consolidate facilities. Actions consistent with this Plan should encourage infilling. <u>Equity</u> <ul style="list-style-type: none"> o Impacts would depend on financing mechanisms and profile of population in service areas affected. o Other impacts on special population groups would depend on effects on costs of housing and who would benefit from jobs created.

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 7 <u>ACCELERATE PROGRAMS TOWARD RECLAMATION AND REUSE OF WASTEWATERS.</u> (See Water Supply Plan)								
Policy 8 <u>ESTABLISH A PROGRAM OF SURFACE RUNOFF CONTROLS THAT EMPHASIZE LOW COST MEASURES TO REDUCE THE POLLUTANT LOAD FROM THIS SOURCE.</u>								
Action 8.1 Implement county surface runoff plans (Appendix C volume), after adoption by the cities and county within each county.		Counties acting as lead agencies for local general purpose governments, and perhaps RCDs and other special districts.	See county plans in Appendix C volume.	Local ordinances. City and county charters, special district enabling legislation; State constitution; FWPCA; Porter-Cologne Act.	Undetermined, at least \$250,000	\$250,000		RWQCB action
Action 8.2 Conduct regional aspects of surface runoff programs.	Regional aspects include modeling of effects on Bay-Delta, public education, model ordinances, assistance on determination of management practices.	ABAG/RWQCB	Continuous.	Porter-Cologne Act; FWPCA	To be determined			Federal 208 funds and/or State program funds.

ENVIRONMENTAL IMPACTS

INSTITUTIONAL/FINANCIAL IMPACTS

ECONOMIC IMPACTS

SOCIAL IMPACTS

Actions 8.1 through 8.16 of the draft EMP were deleted. These actions were included in the draft plan as a summary of the measures in the county surface runoff management plans. The actions were replaced by two actions, one implementing the county plans, and the second for conduct of regional aspects of surface runoff. The assessment tables on the following pages indicate the impacts that can be anticipated from measures in the county plans.

These impacts apply to Policy 8 and its two actions.

Air Quality

- o Temporary and localized air pollutant emission increases may occur during sweeping operations
- o Reduced quantities of dust available for suspension as particulate matter

Water Quality

- o Reduced transport of heavy metals, nutrients, pesticides, organic and microbiological pollutants into water bodies. Typical removals: 30-50% total solids, 25-40% BOD, 25-40% Kjeldahl nitrogen, 8-20% phosphate, 25-60% heavy metals
- o Reduced incidence of impaired uses (e.g., water supply) of water bodies

Physical Resources

- o May indirectly benefit aquatic organisms
- o Enhanced water recreation potential and use
- o May reduce landfill capacities needed to accommodate residues.

Energy

- o Sweeping equipment uses energy

Amenities

- o Improved visual amenities on paved surfaces and in water bodies e.g., reduced floatable solids
- o Temporary, localized noise level increases from equipment operation (70-80 dBA at 50' on flat grade) May be mitigated by noise abatement measures

Financial

- Direct Public Costs of Implementation
 - o See County Surface Runoff Control Plans Cost Data
 - o Example Costs of Street Sweeping Programs

\$16 per cu. yd. of material collected

\$18 per ton of material collected

\$4-5 per curb mile

Fiscal Effects on Local Governments

- o Direct impacts on fiscal resources depend on revenue source(s) used - See County Plans

Institutional

- o May require intergovernmental coordination
- o May require additional staff resources to improve efficiency of sweeping programs
- o May impact other public service levels

Production of Goods & Services

- o Employment - Creation of job opportunities in the private sector may result (administrative and operation and maintenance jobs)

Income and Investment

- o No impacts

Consumer Expenditures

- o No impacts

Housing Supply

- o No impacts

Physical Mobility

- o Temporary, localized disruption of physical mobility may result during sweeping operations. Can be mitigated by scheduling work during off-peak hours

Health & Safety

- o Reduced health risks associated with water quality improvements and vector control benefits

Sense of Community

- o Visual amenity benefits on streetscape and in urban access water bodies may enhance the sense of community

Equity

- o Indirect impacts on special population groups would depend on the financing mechanisms proposed for implementation. In general, payment through the property tax mechanism differentially impacts low- and moderate-income groups

Urban Patterns

- o No impacts

Improved Street Sweeping

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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Air Quality

- o No impacts.

Water Quality

- o Reduced amounts of toxic constituents in water bodies.
- o Reduced incidence of impaired uses (e.g. water supply) of water bodies.

Physical Resources

- o Reduced risks of fish kills, exposure of plant and animal species to harmful substances.
- o Regulation of chemicals used in agricultural production processes, timber management programs etc. may adversely affect use of the resource base. May be mitigated by alternatives such as organic fertilizers and biological pest controls.
- o See also Hazardous Waste Assessment of Solid Waste Management Recommendations.

Energy

- o Reduced use of energy intensive chemicals would not appreciably affect energy demand or supply.

Amenities

- o No impacts.

Financial

Direct Public Costs of Implementation

- o See County Surface Runoff Control Plans Cost Data.

Fiscal Effects on Local Governments

- o Direct impacts on fiscal resources depend on revenue source(s) used- (See County Plans) program costs may be offset by additional taxes on sale of chemicals and distributors licenses. Control of sales may reduce or redistribute local revenues from product sales.

Institutional

- o Improved regulation and enforcement may require intergovernmental coordination.
- o Public opposition to control of chemicals may occur.
- o May require additional public agency staff to do research, public education and information, and regulation.

Production of Goods and Services

- o Employment- Job impacts (creation or elimination) would depend on control proposals effects on production.

Income and Investment

- o Effects on wages and salaries depends on control effects on production and thereby on employment.
- o Effects on profits depends on effects of control proposals on production (increase or decrease demand) and availability of substitute products.

Consumer Expenditures

- o Product prices may increase if added costs to producers of chemicals due to controls can be passed on to the consumer or production cost increases (e.g. food costs) are passed on.
- o Consumers may elect to reduce consumption of certain chemicals or switch to substitutes due to price increases or new information on environmental effects.

Housing Supply

- o No impacts.

Health and Safety

- o Controls on chemical use may restrict vector and nuisance plant control program efforts or require shifts to biological controls.
- o Education on use of potentially harmful chemicals should reduce health and safety risks.

Sense of Community

- o No impacts.

Equity

- o Effects on special population groups depends on financing mechanisms and use of products subject to price increases.

Urban Patterns

- o No impacts.

Controlling Use of Certain Chemicals



ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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Air Quality

- o Reduced odors when accumulated debris is removed; decomposition prevented.
- o Temporary, localized air pollutant emission increases may occur during cleaning operations when motorized vehicles are used.

Water Quality

- o Removal of accumulated solids (sediments, litter, leaves) may reduce BOD, Nitrates, Phosphates and oil and grease loads to water bodies from first flush effects of storms.
- o Reduced incidence of impaired uses (e.g. water supply) of water bodies.

Physical Resources

- o May benefit aquatic organisms.
- o May impact land fill capacities where increased cleaning results in increased quantities of solids for disposal (e.g. I.T. material/year/catch basin; open drainage channel deposits vary).

Energy

- o Motorized equipment uses fuel.

Amenities

- o Temporary localized noise level increases from equipment operation may be mitigated by noise abatement measures.

Financial

Direct Public Costs of Implementation

- o See County Surface Runoff control Plans Cost Data.

Example Costs:

Catch basin Cleaning Costs \$6-8/catch basin or \$4-15/cu yd. Material Collected; Sewer Cleaning Costs \$50-100/cu. yd. material removed.

Fiscal Effects on Local Government

- o Direct impacts on fiscal resources depend on revenue source(s) used - See County Plans.
- o May be consolidated with on-going sewer system maintenance program costs.

Institutional

- o May require additional staff resources (public work personnel on short term basis and inspection, administrative personnel on long-term basis) or reallocation of resources.
- o May result in displacement of another public service (or level of service) during concentrated cleaning effort periods.
- o May result in agency staff opposition to changed work assignments and schedules and added work loads.

Production of Goods and Services

- o Employment- Creation of job opportunities in the private sector may result (e.g. engineering consultants, equipment manufacturers, monitoring and inspection personnel).

Income and Investment

- o Effects on wages and salaries depend on need for additional staff to meet demand.
- o Increased profits may result from demand for private sector goods and services.

Consumer Expenditures

- o No impacts.

Housing Supply

- o No impacts.

Physical Mobility

- o Temporary, localized disruptions in physical mobility may occur during cleaning operations. May be mitigated by scheduling operations during off peak hours.

Health and Safety

- o Water quality benefits may have indirect health benefits.
- o Cleaning activities may also benefit flood control channel maintenance.

Sense of Community

- o No impacts.

Equity

- o Impacts on special population groups depends on the financing mechanism(s) chosen to implement and the job benefits distribution.

Urban Patterns

- o No impacts.

Clean Storm Collection System



ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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Air Quality

- o Reduced incidences of odors associated with decomposing debris and litter in water bodies and stormwater collection systems.

Water Quality

- o Reduced litter and organics (BOD phosphorus, nitrogen) available for introduction to stormwater system and waterbodies.
- o Reduced blockage of storm channels.
- o Reduced incidence of impaired uses (e.g., water supply) of waterbodies.

Physical Resources

- o May indirectly benefit aquatic organisms.
- o Enhanced water recreation potential and use where debris and litter associated pollution impairs use.
- o May impact solid waste management practices - landfill capacities may be affected by added quantities of solids for disposal; may be an added incentive for recycling, neighborhood composting and other resource recovery programs.

Energy

- o When augmenting alternative solid waste management programs, may benefit energy conservation efforts.

Amenities

- o Visual amenity benefits of cleaner landscapes and reduced debris in waterbodies.

Financial

Direct Public Costs of Implementation

- o See County Plans Cost Data.

Fiscal Effects on Local Government

- o Direct impacts on fiscal resources depend on source(s) of revenue used to fund program efforts - See County Plans.
- o State subvention funds and fines may offset costs of enforcement and education.
- o Reduced amounts of litter may result in cost savings in waste collection programs.

Institutional

- o May require intergovernmental coordination between State, regional and local government agencies and special districts.
- o Improved enforcement and intensified anti-litter advertising campaign may require additional staff or reallocation of agency personnel.

Production of Goods and Services

- o Employment - no impact expected in private sector.

Income and Investment

- o Public employment benefits may result in increases in wages and salaries.

Consumer Expenditures

- o No impacts.

Housing Supply

- o May indirectly benefit housing rehabilitation programs where litter control programs improve aesthetics of neighborhoods.

Physical Mobility

- o No impacts.

Health and Safety

- o Water quality improvements may have indirect health benefits.
- o Reduced litter may enhance vector control programs by eliminating or reducing habitats.

Sense of Community

- o Enhanced neighborhood aesthetics may contribute to improved sense of community.

Equity

- o Impacts on special population groups depends on financing mechanism(s) chosen to implement the program.
- o Where programs reduce litter and vectors with associated health benefits in areas with large concentrations of special population groups, those groups will benefit.

Urban Patterns

- o No impacts.

Control Littering



ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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Air Quality

- o May reduce incidence of odors associated with decomposing debris in water bodies and stormwater collection systems

Water Quality

- o Reduced amounts of debris and oil may reduce BOD, phosphates, nitrogen, suspended solids, heavy metals introduced to stormwater system and waterbodies
- o Less oil would be available to leach into groundwater supplies
- o Reduced incidence of impaired uses (e.g., water supply) of water bodies

Physical Resources

- o May indirectly benefit aquatic organisms by removing toxic substances from the environment
- o Enhance water-oriented recreation potential and use where dumping of debris and oil impairs use
- o Reduced dumping could reduce quantities of solid waste which are disposed of in landfills
- o Waste from re-refineries is high in concentrated metals and sulfur. Sludge created will require careful solids management

Energy

- o Oil recycling may augment energy conservation efforts - 700 homes could be heated with BTU equivalent of oil currently dumped
- o Recycled oil can be used to produce other energy consumptive products such as asphalt
- o Re-refineries use part of waste product as fuel to power lighting and pump operations

Amenities

- o Visual amenity benefits from cleaner landscape and less debris and oil slicks in water bodies

Financial

- Direct Public Costs of Implementation
 - o See County Surface Runoff Management Plans Cost Data

Fiscal Effects on Local Governments

- o Direct impacts on fiscal resources depend on source(s) of revenue used to fund programs - See County Plans
- o Reduced dumping may result in some cost and savings in public works programs (Ex. cost to remove oil dumped is \$150/gallon)
- o Fines for illegal dumping may offset costs of additional enforcement efforts
- o Use of re-refined oil by public agencies would result in savings in fleet operation and maintenance costs
- o Public agency oil recycling would generate revenues from sale of oil to re-refineries

Institutional

- o May require additional staff resources to improve regulation and enforcement and educate public
- o May require cooperation of public agencies with regulatory and program responsibilities for control of dumping and oil recycling
- o May require additional regulations and guidelines to ensure proper labeling, handling and accessibility to re-refined oil

Production of Goods & Services

- o Employment - Job opportunities may result if extensive oil recycling programs stimulate demand for more recycling firms
- o Production of recycled oil may increase
- o Additional firms may enter the market to meet increased demand

Income & Investment

- o Increased wages and salaries may result from jobs created
- o May increase profits of firms benefited by increased oil recycling (Example: (prices fluctuate with oil costs)- service stations receive 8¢/gallon, used oil collection agents - 16¢/gallon, re-refineries \$1.20 - 1.60/gallon)

Consumer Expenditures

- o Retail markets for re-refined oil are generally lacking. At such time as they are developed, consumers would receive the benefit of access to cost savings in purchase of re-refined oil

Housing Supply

- o No impact

Physical Mobility

- o No impact

Health & Safety

- o Water Quality improvements may have indirect health benefits
- o Reduced dumping of debris and oil may augment vector and nuisance plant control program

Sense of Community

- o Enhanced neighborhood and physical environment aesthetics may contribute to improved sense of community

Equity

- o Impacts on special population groups depends on financing mechanism(s) chosen to implement the programs
- o Where programs reduce dumping and aid vector control and associated public health and enhancement in areas with large concentrations of special population groups, those groups will benefit

Urban Patterns

- o No impacts

Control Dumping



ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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Air Quality

- o Localized increases in air emissions from repair equipment.
- o Reduced dust available for introduction as particulate matter.

Water Quality

- o Reduced total street contaminant loads which contribute to total suspended solids, BOD and toxic substances in urban runoff.
- o Reduced incidence of impaired uses (e.g. water supply) of water bodies.

Physical Resources

- o May indirectly benefit aquatic organisms.
- o May require physical resources to produce repair products.

Energy

- o Repair equipment uses energy as does production of asphalt and other repair products.

Amenities

- o Localized, temporary increases in noise levels during repair operations.

Financial

Direct Public Costs of Implementation

- o No costs above current commitments.

Fiscal Effects on Local Governments

- o Federal and State grant subvention funds offset much of cost of street repair with remainder coming from local general revenue funds.

Institutional

- o No impacts.

Production of Goods and Services

- o No impacts.

Income and Investment

- o No impacts.

Consumer Expenditures

- o No impacts.

Housing Supply

- o May indirectly benefit housing rehabilitation programs where street repair and maintenance improves accessibility and street systems in rehabilitation areas.

Physical Mobility

- o Local temporary disruption in physical mobility during repair operations.

Health and Safety

- o Water quality improvements may have indirect health benefits.
- o Street repair programs have public safety benefits.

Sense of Community

- o Streets kept in good repair may enhance neighborhood sense of community.

Equity

- o No impacts

Urban Patterns

- o No impacts.

Repair Streets



ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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See Impact Assessment of Policy 11

Ensure Proper Operation of Septic Tanks



Impacts same as noted for Control Dumping.


Impacts same as noted for Control Dumping.

Impacts same as noted for Control Dumping.

Impacts same as noted for Control Dumping.

Other Measures



ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> <ul style="list-style-type: none"> o Localized reductions in dust/particulate matter from construction activities. <u>Water Quality</u> <ul style="list-style-type: none"> o Reduced amounts of sediments and nutrients entering waterbodies from agricultural and construction activities. o Reduced siltation of stream channels, lakes and reservoirs and annual sediment loadings to the Bay contributed by land disruption by human activities. o Reduced turbidity, algae blooms, and oxygen depletion in streams, lakes and reservoirs. o Reduced incidence of impaired use (e.g., water supply) of waterbodies. o Reduced amounts of suspended solids available for chemical, pesticide and heavy metal binding. <u>Physical Resources</u> <ul style="list-style-type: none"> o Reduced incidence of burial of aquatic bottom organisms and fish kills may result. o Indirectly benefits productivity of aquatic community by preventing or reducing interference with photosynthesis, elimination of food sources. o Reduced losses of productive topsoil, organic matter should enhance the productivity of agriculture and timber production activities. o May indirectly enhance recreation potential and use of waterbodies and adjacent lands. <u>Energy</u> <ul style="list-style-type: none"> o May indirectly result in energy savings where dredging activities are reduced. <u>Amenities</u> <ul style="list-style-type: none"> o Visual amenity benefits of less turbid waters and reduced eroded areas. o Visual amenity benefits of preserving the natural state of the environment. 	<u>Financial</u> <p>Direct Public Costs of Implementation</p> <ul style="list-style-type: none"> o See County Surface Runoff control Plans Cost Data. o See Council of Bay Area Resource Conservation Districts Handbook of Best Management Practices for example costs. <p>Fiscal Effects on Local Governments</p> <ul style="list-style-type: none"> o Direct impacts on fiscal resources depend on revenue source(s) used - See County Plans. o Permit and plan review fees may offset local costs to implement and enforce. o Performance bonds may offset costs of clean-up. o Savings in operation and maintenance costs (e.g., in reservoirs) of local governments and special districts may result - an estimated \$5 million is spent annually to alleviate lake problems such as siltation, algae blooms, aquatic weeds, fish kills, etc. <u>Institutional</u> <ul style="list-style-type: none"> o Effective implementation would require the cooperation of numerous public agencies such as National Park Services, U. S. Geological Survey, Corps of Engineers, California Department of Fish & Game, Flood Control and Water Districts, cities and counties. o New or amended ordinances, regulations or administrative rule-making may be required. o Some aspects of erosion control programs may meet with public opposition. o Additional staff resources may be required to implement and enforce the recommendations. 	<u>Production of Goods and Services</u> <ul style="list-style-type: none"> o Employment - Creation of job opportunities may result (e.g., landscape and engineering consultants, construction firms). o Increased demand for goods and services may result in some new firms entering market. <u>Income and Investment</u> <ul style="list-style-type: none"> o Effects on wages and salaries depends on control measures effects on production and employment. o Increased profits for firms benefiting from increased demand for goods and services. o Profit of firms and individuals bearing costs of controls should not be affected assuming costs can and will be passed on to the consumer (industry dependent response). <u>Consumer Expenditures</u> <ul style="list-style-type: none"> o Where private industry costs to control erosion are passed on in product prices, costs of goods and services will increase. <p>Direct Private Costs of Implementation</p> <p>Example Costs of Erosion Control and Agricultural Management Practices:</p> <p>Hydroseeding/Hydromulching \$425-900/acre</p> <p>Siltation Berm \$7.33/lineal foot</p> <p>Waterway Fencing \$1-2.75/lineal foot</p> <p>Range Seeding \$18/acre</p> <p>Construction erosion controls for 80 unit subdivision may cost \$500-700/acre.</p>	<u>Housing Supply</u> <ul style="list-style-type: none"> o Decreased supply (e.g., < 2DU/acre instead of < 4DU/acre on slopes > 15%) and increased costs of housing (e.g., the average price of a house may increase \$200-600 - an example design and installation cost of a best management practice) may result where erosion controls are a new component of the development approval process. <u>Physical Mobility</u> <ul style="list-style-type: none"> o Localized, temporary disruption in physical mobility during construction activities. <u>Health and Safety</u> <ul style="list-style-type: none"> o Indirect public safety benefits of reduced flood peaks and flood risks associated with siltation and alteration of natural flow regimes in streams. o Reduced erosion and mudslide risks. o Reduced likelihood of development in hazardous areas with attendant public safety benefits. o Reduced conditions conducive to propagation of vectors and other noxious plant and animal species. o Retention or debris basins may become a health hazard if water stagnates and vector problems result or a safety hazard (drowning). <u>Sense of Community</u> <ul style="list-style-type: none"> o No impacts. <u>Equity</u> <ul style="list-style-type: none"> o Indirect impacts on special population groups depends on financing mechanism(s) proposed as well as actual impacts on housing supply and costs. <u>Urban Patterns</u> <ul style="list-style-type: none"> o Erosion control requirements should not in and of themselves affect urban patterns.
<div>Control Erosion/Improve Agricultural Practices</div> 			

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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Impacts same as noted for Establish Water Quality Monitoring Program.

Impacts same as noted for Establish Water Quality Monitoring Program.

Impacts same as noted for Establish Water Quality Monitoring Program.

Sense of Community

o Public education/information programs about surface runoff problems and solutions could indirectly improve the sense of community.

Other impacts are same as noted for Establish a Water Quality Monitoring Program.

Establish a Public Information/Education Program



ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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Impacts same as noted for Control Dumping.

Impacts same as noted for Control Dumping.

Impacts same as noted for Control Dumping.

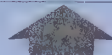
Impacts same as noted for Control Dumping.

Divert Runoff From Contaminated Areas



See Impact Assessment for Policy 5 of the Water Quality Management Plan (Provide Facilities Needed for Municipal Sewerage Service and Water Quality Protection

Treat and Store Runoff



Impacts same as noted for Control Dumping & Control Erosion.

Impacts same as noted for Control Dumping & Control Erosion.

Impacts same as noted for Control Dumping & Control Erosion

Impacts same as noted for Control Dumping & Control Erosion

Control Land Use Along Creeks



<u>Air Quality</u> <ul style="list-style-type: none"> o No impacts 	<u>Financial</u> Direct Public Costs of Implementation <ul style="list-style-type: none"> o See County Surface Runoff control Plans Cost Data Fiscal Effects on Local Governments <ul style="list-style-type: none"> o Direct impacts on fiscal resources depend on revenue source(s) used - See County Plans o Cost savings may result where monitoring consolidation occurs 	<u>Production of Goods & Services</u> <ul style="list-style-type: none"> o Employment - may create employment for sampling and analysis personnel in public and private laboratories <u>Income & Investment</u> <ul style="list-style-type: none"> o Will require capital investment for sampling and analysis when that is a new function for a management agency and is not contracted to private firms <u>Consumer Expenditures</u> <ul style="list-style-type: none"> o No impacts 	<u>Housing Supply</u> <ul style="list-style-type: none"> o No impacts <u>Physical Mobility</u> <ul style="list-style-type: none"> o No impacts <u>Health & Safety</u> <ul style="list-style-type: none"> o Indirectly would benefit public health through water quality improvements o Could uncover health and safety problems meriting solution
<u>Water Quality</u> <ul style="list-style-type: none"> o Indirectly improves water quality - provides data to make informed decisions 			
<u>Physical Resources</u> <ul style="list-style-type: none"> o Indirectly benefits physical resources as water quality and land management practices improve 	<u>Institutional</u> <ul style="list-style-type: none"> o May require additional staff to increase monitoring activities o Would require cooperation and coordination among the numerous agencies involved in water quality monitoring 		<u>Sense of Community</u> <ul style="list-style-type: none"> o No impact
<u>Energy</u> <ul style="list-style-type: none"> o No impacts 			<u>Equity</u> <ul style="list-style-type: none"> o No impact
<u>Amenities</u> <ul style="list-style-type: none"> o Indirectly affects amenities - highly dependent on nature of actions taken as a result of monitoring data 			<u>Urban Patterns</u> <ul style="list-style-type: none"> o No impact

Establish Water Quality Monitoring Program



ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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Air Quality

- o May indirectly benefit air quality when surface runoff management coordinates with air quality protection measures.

Water Quality

- o Indirect improvements in water quality as data, information and plans improve decision-making about surface runoff management.

Physical Resources

- o Indirect benefits to aquatic resources as overall water quality improves.
- o Indirect benefits of enhanced recreation potential and use from improved water quality and land management.

Energy

- o Surface runoff management practices may use energy; others may reduce use of energy by substituting management controls for energy consumptive structural controls.

Amenities

- o Indirect improvement of land and water visual amenities and natural state of environment.

Financial

Direct Costs of Implementation

- o See County Surface Runoff Management Plans Cost Data

ABAG Costs -

Fiscal Effects on Local Governments

- o Depends on source(s) of revenue used - See County Plans.

Institutional

- o Requires aggressive leadership by County 208 lead agency staff.
- o Requires involvement and cooperation of numerous agencies.

Production of Goods and Services

- o Employment- Jobs may be created to carry out and meet new requirements if developed in the CPP.

Income and Investment

- o May indirectly increase or decrease profits of firms affected by new requirements if developed in the CPP.

Consumer Expenditures

- o Prices of goods and services may increase if new requirements are developed in the CPP.

Housing Supply

- o May indirectly affect the supply and cost of housing if new requirements result from the CPP which affect housing.

Physical Mobility

- o Localized short-term disruption in physical mobility where controls noted to have mobility impacts (Policy 1-17) are continued.

Health and Safety

- o Indirect health benefits from water quality improvements.

Sense of Community

- o May indirectly affect the sense of community depending on recommendations of CPP.

Equity

- o Impacts on special population groups depends on financing mechanism(s) proposed and effects of CPP proposals and findings on housing and jobs. Incidence analysis should be one review requirement of a program to develop financing mechanisms.

Urban Patterns

- o May indirectly affect land use.

Establish a Surface Runoff Administrative Structure and Procedures for Continuing Planning



RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 9 PROVIDE FACILITIES NEEDED FOR INDUSTRIAL WASTEWATER TREATMENT AND DISPOSAL AND WATER QUALITY PROTECTION.								
Action 9.1 Expand existing and provide new facilities for treatment and disposal of industrial wastes discharged directly to receiving waters.	Direct industrial discharges that may have to be treated to a higher degree than at present are listed in Section K.	Individual pri- See Section vate companies. K.			At least \$25,000,000 to \$50,000,000	-0-	Private funds. Low-interest rate loans available authorized by California Pollution Control Financing Act.	RWQCB can impose sanctions for non-compliance with permit conditions.

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> <ul style="list-style-type: none"> o No impacts. <u>Water Quality</u> <ul style="list-style-type: none"> o Receiving waters would have lowered levels of pollutants such as: ammonia, bacteria, phosphorus, toxic organic compounds and heavy metals. o Less frequent oxygen depletion in localized areas of the Bay. <u>Physical Resources</u> <ul style="list-style-type: none"> o Increased amounts of toxic wastewater residuals would require additional capacity in limited hazardous waste disposal sites. o Directly consumes construction materials. o Would benefit fish and wildlife resources in areas where industrial discharges are eliminated or toxic levels reduced. <u>Energy</u> <ul style="list-style-type: none"> o Increased energy consumption would result from the addition of pollution abatement processes. <u>Amenities</u> <ul style="list-style-type: none"> o No impacts. 	<u>Financial</u> <ul style="list-style-type: none"> o See individual actions. <u>Institutional</u> <ul style="list-style-type: none"> o See individual actions. 	<u>Production of Goods and Services</u> <ul style="list-style-type: none"> o Approximately 3400 temporary and 800 permanent jobs to construct and operate industrial treatment facilities. o Production in certain sectors may be reduced by plant closures. o Some industries have achieved increased production efficiency. o In some cases may cause closure of some small industries--primarily in urban areas--if discharge requirements can't be met. May be mitigated by bond guarantee program of Small business Administration. <u>Income and Investment</u> <ul style="list-style-type: none"> o Investment in pollution control facilities. o Investment funds would be withdrawn from other areas of industrial activity. o Probable increases in pollution control workers wages. <u>Consumer Expenditures</u> <ul style="list-style-type: none"> o See individual actions. 	<u>Housing Supply</u> <ul style="list-style-type: none"> o Housing industry is sensitive to diversion of investment funds. o Impacts on the supply and cost of new housing may result. <u>Urban Patterns</u> <ul style="list-style-type: none"> o In some cases may cause closure of industries--primarily in urban areas--if discharge requirements can't be met. o In other cases provides mechanism to allow industrial growth--and thereby urban growth--in conformance with Federal and State discharge requirements and needs of Bay Area environment. <u>Health and Safety</u> <ul style="list-style-type: none"> o Indirectly protects health and safety by removing gross toxicants and infectious agents from receiving waters. <u>Physical Mobility</u> <ul style="list-style-type: none"> o See individual actions. <u>Sense of Community</u> <ul style="list-style-type: none"> o Plant closures, job losses and out migration could alter community stability and character as community profiles change. This effect would be felt more in urban areas. <u>Equity</u> <ul style="list-style-type: none"> o See individual actions.
<p>Impacts same as noted for Policy 9.</p>	<u>Financial</u> <ul style="list-style-type: none"> o No impacts. <u>Institutional</u> <ul style="list-style-type: none"> o No impacts. 	<u>Direct Private Cost of Implementation</u> <ul style="list-style-type: none"> o (1978-2000) \$25,000,000/year (annualized costs @ 8% derived from national level estimates). <u>Consumer Expenditures</u> <ul style="list-style-type: none"> o If pollution control measures are financed by increased costs of products, then consumer expenditures will increase. <p>Other economic impacts are the same as noted for Policy 9.</p>	<u>Physical Mobility</u> <ul style="list-style-type: none"> o Treatment costs borne by the petroleum industry may cause a rise in fuel prices and reduce mobility of population. <u>Equity</u> <ul style="list-style-type: none"> o Increased prices of consumer goods tend to disproportionately impact low and moderate income groups. <p>Other social impacts are the same as noted for Policy 9.</p>

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 9.2 Issue and update permits for direct industrial discharges.		RWQCB.	Continuous.	Federal Water Pollution Control Act Amendments & Porter-Cologne Act.	\$220,000	-0-	State appropriation.	EPA review.
Action 9.3 Expand existing and provide new facilities for pretreatment of industrial wastewaters discharged to municipal sewer systems.	Only that degree of treatment necessary to meet the municipalities discharge requirements are recommended at this time.	Individual private companies.	Continuous.		Undetermined. If all indirect dischargers had to treat to same level as direct dischargers, cost would be \$15,000,000.	Undetermined	Private funds. Low-interest rate loans available.	Sewerage agencies actions.
Action 9.4 Issue and update permits for industrial discharges to municipal sewer systems.		Sewerage agencies.	Continuous.		Undetermined	Undetermined	User charges.	RWQCB action.

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
Impacts same as noted for Policy 9.	<u>Financial</u> Direct Public Costs of Implementation <ul style="list-style-type: none"> o (1977-2000) \$217,000/year (current cost of RWQCB effort). Fiscal Effects on Local Government <ul style="list-style-type: none"> o No change from current costs and methods of financing permitting programs. <u>Institutional</u> <ul style="list-style-type: none"> o No impacts - no change from current practices of permitting agencies. 	<u>Consumer Expenditures</u> <ul style="list-style-type: none"> o No impacts. Other economic impacts are the same as noted for Policy 9.	<u>Physical Mobility</u> <ul style="list-style-type: none"> o No impacts. <u>Equity</u> <ul style="list-style-type: none"> o No impacts. Other social impacts are the same as noted for Policy 9.
<u>Water Quality</u> <ul style="list-style-type: none"> o Reduction of toxic discharges to sewers would protect sewage treatment plants from upset and decrease toxicant discharges to environment. Other environmental impacts are the same as noted for Policy 9.	<u>Financial</u> <ul style="list-style-type: none"> o No impact. <u>Institutional</u> <ul style="list-style-type: none"> o No impact. 	Direct Private Costs of Implementation <ul style="list-style-type: none"> o (1978-2000) \$15,000,000/year (annualized costs derived from national level estimates). Other economic impacts are the same as noted for Policy 9.	<u>Physical Mobility</u> <ul style="list-style-type: none"> o No impacts. Other social impacts are the same as noted for Policy 9.
Impacts same as noted for Policy 9.	<u>Financial</u> Direct Public Costs of Implementation <ul style="list-style-type: none"> o Exact current expenditures by sewerage service entities is not known. Fiscal Effects on Local Government <ul style="list-style-type: none"> o No changes from present practices. <u>Institutional</u> <ul style="list-style-type: none"> o Impacts same as noted for Action 9.2. 	Impacts same as noted for Action 9.2	Impacts same as noted for Action 9.2

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 10 REDUCE SEWAGE POLLUTION FROM VESSELS, INCLUDING HOUSEBOATS, IN THE BAY-DELTA SYSTEM.								
Action 10.1 Improve monitoring and documentation of vessel waste pollution.	Conducting periodic bacterial sampling of waters at all areas of small boat congregation; document effectiveness of current programs.	RWOCB in consultation with county health departments.	Quarterly; Porter-Cologne commencing Act. Dec., 1978		\$150,000	\$150,000	State & EPA grants.	
Action 10.2 Conduct public hearing(s) and establish discharge prohibition as appropriate.	If discharge prohibition for entire Bay-Delta system isn't justified based on information currently available, the results of action 10.1 will be used to determine the need for prohibitions in environmentally sensitive areas.	RWOCB	June 1978.	Porter-Cologne Act	-0-	-0-	State program funds	

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> <ul style="list-style-type: none"> o No impacts. <u>Water Quality</u> <ul style="list-style-type: none"> o Reduced coliform bacteria contamination of waters in harbors and marinas and shellfish harvesting areas. <u>Physical Resources</u> <ul style="list-style-type: none"> o Enhanced water recreation potential and use - particularly marine organism harvesting. <u>Energy</u> <ul style="list-style-type: none"> o Facility construction and operation requires energy; actual increased demand would be minor. <u>Amenities</u> <ul style="list-style-type: none"> o Indirect visual amenity impacts - reduced amounts of floatable sewage solids. 	<u>Financial</u> Direct Public Costs of Implementation <ul style="list-style-type: none"> o See below. Fiscal Effects on Local Governments <ul style="list-style-type: none"> o See below. <u>Institutional</u> <ul style="list-style-type: none"> o May require legislative amendments. o May require intergovernmental coordination. 	<u>Production of Goods and Services</u> <ul style="list-style-type: none"> o Employment - Approximately 70 temporary and 17 permanent public and private sector job opportunities may result (basic and service sector). <u>Income and Investment</u> <ul style="list-style-type: none"> o Increased employment would increase wages and salaries in construction and equipment supply. o Increased capital investments (see example below) may be required. o Increased profits may result for firms where production increases as a result of increased demand for products and services. o No impacts on profits of firms bearing costs of requirements, assuming costs can be passed on to consumers. <u>Consumer Expenditures</u> <ul style="list-style-type: none"> o Increased prices of goods and services at marinas would result. 	<u>Housing Supply</u> <ul style="list-style-type: none"> o No impacts. <u>Physical Mobility</u> <ul style="list-style-type: none"> o Reduced pleasure craft travel time to pumpout facilities. <u>Health and Safety</u> <ul style="list-style-type: none"> o Reduced incidence of water quality related public health risks should accompany water quality improvements. <u>Sense of Community</u> <ul style="list-style-type: none"> o No impacts. <u>Equity</u> <ul style="list-style-type: none"> o Where costs of new requirements are wholly borne by boat owners the costs of pollution cleanup would fall on the source of pollution. <u>Urban Patterns</u> <ul style="list-style-type: none"> o No impacts.
Impacts same as noted for Policy 10..	<u>Financial</u> Direct Public Costs of Implementation (1978-200) \$150,000/year (Administrative/Regulatory costs for Annual Monitoring Effort) Fiscal Effects on Local Governments <ul style="list-style-type: none"> o No impact. <u>Institutional</u> <ul style="list-style-type: none"> o Requires cooperation of RWQCB. 	Impacts same as noted for Policy 10.	Impacts same as noted for Policy 10.
<u>Water Quality</u> <ul style="list-style-type: none"> o Discharge prohibitions would require use of holding tank devices that are more reliable than flow-through devices now permitted. 	<u>Financial</u> Direct Public Costs of Implementation <ul style="list-style-type: none"> o Incremental cost increases in on-going Coast Guard inspection and enforcement efforts. Fiscal Effects on Local Governments <ul style="list-style-type: none"> o Direct impacts on local government fiscal resources may result. <u>Institutional</u> <ul style="list-style-type: none"> o Impacts same as noted for Policy 10. 	<u>Consumer Expenditures</u> <ul style="list-style-type: none"> o Holding tank systems that are cheaper than flow-thru type devices would be required. o Boat owners with flow-thru type devices would bear additional cost of converting to holding tanks. o \$40 to \$250 typical cost for holding tank systems. Other economic impacts are the same as noted for Policy 10.	Impacts same as noted for Policy 10.

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	IMPLEMENTING AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 10.3 Inform boating public of marine sanitation device programs.	Provide information on types of devices, matching shoreside facilities, schedules, procedures and costs.	RWQCB, U.S. Coast Guard	1978 & 1979	Porter-Cologne Act.	\$5,000	\$5,000	State appropriation, Federal program funds.	
Action 10.4 All marinas and harbors to provide vessel holding tank pump-out facilities.		Marina/harbor owner.	January, 1980.	Harbors and Navigation Code, Sec. 776, McAteer-Petris Act (as amended).	\$500,000	\$500,000	Owners-local and private funds; State Department of Navigation and Ocean Development (DNOD) funds.	SWRCB and BCDC permit programs.
Action 10.5 All marinas and harbors to provide on-shore toilet facilities.	For marinas, harbors, boat launch areas. Most appear to have adequate facilities--there are some exceptions.	Marina/harbor owner.	January, 1980.	New State legislation required for existing facilities; McAteer-Petris Act (as amended) for new facilities.	Undetermined	Undetermined	Local and private funds; loans and grants from DNOD.	None yet for existing facilities; BCDC action for new facilities.
Action 10.6 Revise DNOD's loans and grants programs to fund pump-out facilities and on-shore toilets.	Presently funds pump-out facilities only as part of overall new harbor or marina package.	California Department of Navigation and Ocean Development.		Harbors and Navigation Code; Div. 1, Chapter 2, Article 3; Revision of DNOD policy required.	-0-	-0-	Harbors & Water Craft Revolving Fund; Motor Vehicle Fuel Fund.	Governor's Executive Order.

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
Impacts same as noted for Policy 10.	<u>Financial</u> Direct Costs of Implementation (1978 and 1979) \$30,000/year (Administrative Costs of Public Information Program) Fiscal Effects on Local Governments o No impacts. <u>Institutional</u> o No impact.	<u>Production of Goods and Services</u> o No impacts. <u>Income and Investment</u> o No impacts. <u>Consumer Expenditures</u> o No impacts.	Impacts same as noted for Policy 10.
Impacts same as noted for Policy 10.	<u>Financial</u> Direct Public Costs of Implementation Example Costs to Public Marinas for Pumpout Facilities: Capital (1980) \$20,000 < 100 berths \$45,000 > 100 berths O & M (1981-2000) \$2,000 - 4,500/year Administrative/Regulatory Costs to Ensure Compliance - Issue Permits: (1980) \$80,000/first Year (1981-2000) \$15,000/Year Fiscal Effects on Local Governments o Direct impacts on fiscal resources would result even with grant subvention. Fiscal impacts depend on revenue source used for local share of costs (user charges, bonds, revenue sharing). <u>Institutional</u> Impacts same as noted for Policy 10.	<u>Production of Goods and Services</u> o Employment - Jobs may be created in consulting firms, pumping equipment manufacturing firms, other materials manufacturing and contracting or construction firms. <u>Income and Investment</u> o Impacts same as noted for Policy 10. (see also direct private costs). <u>Consumer Expenditures</u> o Prices of services at marinas (rental fees, pumpout fees) would increase. Direct Private Costs of Implementation Example Costs to Private Marinas for Pumpout Facilities: Capital (1980) \$20,000 < 100 berths \$45,000 > 100 berths O & M (1981-2000) \$2,000 - 4,500/year	Impacts same as noted for Policy 10.
Impacts same as noted for Policy 10.	<u>Financial</u> Direct Public Costs of Implementation Example Costs to Public Marinas for Toilet Facilities: Capital (1980) \$42,000/marina O & M (1981-2000) \$4,200/year (Administrative/Regulatory Costs are included in 10.4 costs.) o Most marinas appear to have adequate toilet facilities. Fiscal Effects on Local Governments o Impacts same as noted above for Action 10.4. <u>Institutional</u> o Requires new regulations and administrative rule-making.	<u>Consumer Expenditures</u> Direct Private Costs of Implementation Example Costs to Private Marinas for Toilet Facilities: Capital (1980) \$42,000/marina O & M (1981-2000) \$4,200/year o Most marinas appear to have adequate toilet facilities. Other economic impacts same as noted for Action 10.4.	Impacts same as noted for Policy 10.

Assessment should be part of any amendment process of applicable State grants and loan programs. Amendment of the Department of Navigation and Ocean Development grant and loan program would, in general, distribute monies from gasoline tax revenues to both public and private marinas to pay for provision of facilities. Currently, public marinas charge nominal fees or do not charge at all for use of pumpout facilities.

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
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Policy 11

IMPROVE WASTEWATER DISPOSAL PRACTICES IN UNSEWERED AREAS

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> <ul style="list-style-type: none"> o Instances of odorous conditions due to system failures should decrease. <u>Water Quality</u> <ul style="list-style-type: none"> o Reduce coliform bacteria contamination of surface and groundwaters. <u>Physical Resources</u> <ul style="list-style-type: none"> o Increased land requirements for on-site systems may result in competition with agricultural uses. o Increased water contact and non-contact (e.g. swimming, fishing, boating) recreation potential and use in streams and lakes now polluted by septic tank drainage. <u>Energy</u> <ul style="list-style-type: none"> o Onsite disposal systems use less energy than centralized sewerage treatment systems. <u>Amenities</u> <ul style="list-style-type: none"> o Visual amenity impacts-reduced likelihood of algal blooms from high nutrient concentrations in water bodies and in streams (especially during low flow periods). 	<u>Financial</u> <p>Direct Costs of Implementation</p> <p>See below</p> <p>Fiscal Effects on Local Government</p> <p>See below</p> <u>Institutional</u> <ul style="list-style-type: none"> o May require new legislation, amendments to regulations, codes. o May require intergovernmental coordination. o May require organizational changes 	<u>Production of Goods and Services</u> <ul style="list-style-type: none"> o Employment - Creation of approximately 50 temporary and 50 permanent new job opportunities in the public and private sectors may result. <u>Income Investment</u> <ul style="list-style-type: none"> o Increased wages and salaries in sectors where increased demand for goods and services results in new jobs. o Increased capital investments may be required. o Increased profits for firms where increased demand stimulates increased production. <u>Consumer Expenditures</u> <ul style="list-style-type: none"> o Increased prices of goods and services may occur. 	<u>Housing Supply</u> <ul style="list-style-type: none"> o Increased costs of existing housing maintenance and rehabilitation would result. o Location and density constraints may reduce new starts (supply) in areas proposing to use onsite system. o Increased new housing costs may result from decreased supply and costs to comply with new standards. <u>Physical Mobility</u> <ul style="list-style-type: none"> o No impacts. <u>Health and Safety</u> <ul style="list-style-type: none"> o Reduced likelihood of raw sewage ponding on surface, discharging to water bodies and drainage ways. o Fewer conditions which promote vectors and other noxious species (e.g. rodents, mosquitos, flies, algae). o Reduced health risks associated with bacterial contamination of ground and surface waters. <u>Sense of Community</u> <ul style="list-style-type: none"> o No impacts. <u>Equity</u> <ul style="list-style-type: none"> o Indirect impacts may result through impacts on costs of new and existing housing. o Where costs of new requirements or public management are wholly borne by residents of management area, the equity effects would depend on the social profile of the area and the financing mechanism chosen. <u>Urban Patterns</u> <ul style="list-style-type: none"> o Impacts on the location, timing, density, and amount of new development may result.

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 11.1 Establish minimum regionwide standards for on-site disposal systems.	a) Standards for selection, design, evaluation and construction of on-site disposal systems. Standards would preclude sub-standard "interim" on-site systems awaiting a "future" sewer.	RWQCB with assistance from County Health Departments	By December 1979, annually thereafter.	Porter-Cologne Act, enabling laws for County Health Departments.	\$10,000	\$10,000	State funds, Federal grants, local funds.	SWRCB/RWQCB action
	b) Incorporate new standards in local building codes and ordinances.	City and county governments.	By April, 1980.	Local government enabling legislation.	Undetermined	Undetermined	Local funds.	
	c) Standards may vary depending on local conditions but must meet minimum requirements.							
Action 11.2 Inspect periodically new on-site wastewater disposal systems, including septic tanks, and establish procedures to ensure proper maintenance.	Inspection will be by public agencies.	Local agencies	October, 1978.	Porter-Cologne Act; Calif. Health & Safety Code Section 6950 et seq.	Undetermined	Undetermined	Service fees; "201", State Clean Water grants; maintenance districts.	RWQCB can require public management of new developments.

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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Impacts same as noted for Policy 11.

Financial

Direct Public Costs of Implementation
(1979) \$20,000 (First year administrative costs of standard revision)
(1980-2000) \$10,000/year (Annual standard revision)

(1980) \$45,000 (Cost to revise codes and ordinances - regional total or \$450/jurisdiction)

Fiscal Effects on Local Governments

- o No impact.

Institutional

- o Existing ordinances, codes, regulations would need to be modified or amended.
- o Requires cooperation of numerous local and regional authorities.

Income and Investment

- o Profits of firms bearing costs of meeting updated standards should not be affected assuming costs can and will be passed on to the consumer (industry-dependent response).

Consumer Expenditures

- o Indirect increased prices of homes may result from increased costs to meet new requirements.

Health and Safety

- o Standard enforcement should decrease development on unstable land and in flood plains.

Urban Patterns

- o Would tend to discourage developments with marginal on-site systems in favor of sewer areas.

Other social impacts are the same as noted for Policy 11.

Physical Resources

- o Indirect impacts on solid waste management practices-land fill capacities and alternative sludge disposal practices.

Other environmental impacts are the same as noted for Policy 11.

Financial

Direct Public Costs of Implementation
(1978-2000) \$45,000/Management Agency/year
(Example of Administrative/Regulatory costs for one year to inspect and monitor an area with 1000 septic tanks)

Fiscal Effects on Local Government

- o Impacts on fiscal resources would depend on choice of financing mechanism. If financed by annual assessments, based on assessed value, the property tax rate in the management zone would increase.
- o An example charge per household for monitoring and maintenance is \$150/year (Stinson Beach).

Institutional

- o Direct impacts on legal capabilities may require creation of special districts or new service areas; expansion of responsibilities of existing agencies or districts; modifications to rules, regulations, and ordinances.
- o Direct impacts on intergovernmental responsibilities and coordination due to required cooperation of county health departments, RWQCB, zoning authorities, LAFCOs, service districts-may be mitigated by formal cooperative agreements, memoranda of understanding.

Production of Goods and Services

- o Employment - Increased job opportunities may result if inspection services are contracted to private firms or individuals, new jobs may result in pumpout businesses and equipment supply firms.

- o Increased demands for maintenance services may result in new firms entering the market.

Consumer Expenditures

- o Annual costs to homeowners would be higher than for homeowners not providing periodic inspection and maintenance.

Other economic impacts are the same as noted for Policy 11.

Housing Supply

- o Costs of new housing may increase due to supply effects, cost to meet new standards and inspection service charges.

Other social impacts are the same as noted for Policy 11.

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 11.3 Establish procedure for inspection and maintenance of existing on-site systems where appropriate.	Public management and procedures for establishment determined by California Health & Safety Code, Section 6950 et. seq.	Local governments.	As needed.	Calif. Health and Safety Code Section 6950 et seq.	Undetermined	Undetermined	Service fees "201", State Clean Water grants; maintenance districts	RWQCB can issue waste discharge permits for on-site systems.
Action 11.4 Where on-site systems are inappropriate--install sewerage system.	County Health Dept. survey identifying problems leads to RWQCB cease and desist order and need for sewers. New developments not meeting updated standards for on-site would automatically need sewers. Inappropriate means technically unsuitable for permanent use on proposed or existing lot size.	Local sewerage agencies.	On-going.	Porter-Cologne Act.	Undetermined	Undetermined	System financed via "201", State Clean Water grants, local bonds, assessments, service charges, property taxes, etc.	RWQCB cease and desist order. Health Department can force evacuation of dwellings.
Action 11.5 Promote research of on-site disposal systems.	To improve on-site systems, develop new design and construction criteria and develop new systems.	Governor's Office of Appropriate Technology, private industry.	On-going.	California Government Code 65025 et seq.	Undetermined	Undetermined	State funds, perhaps Federal subsidies; private funds.	Voluntary.
Action 11.6 Revise State & Federal grants programs to ensure consideration for funding on-site systems.	To increase the number of on-site system and maintenance district components eligible for funding.	SHRCB, EPA	On-going.	PL 92-500; Porter-Cologne Act.	-0-	-0-	"201", State Clean Water grants program.	

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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Physical Resources

- o Indirect impacts on solid waste management practices-land fill capacities and alternative sludge disposal practices (e.g., pumpout of 1700 onsite systems may produce 9600 gallons of septage to be disposed of every week.
- o Treatment prior to disposal could be a problem as treatment facilities near unsewered areas may not be able to handle increased volumes and concentration levels of septage.

- o In some cases, functioning onsite systems may reduce need to expand sewage treatment plant capacity.

Other environmental impacts are the same as noted for Policy 11.

Financial

Direct Public Costs of Implementation

\$175,000 (First year costs to locate and inspect 5000 onsite systems which is average number per county based on 1970 census data) - approximate.

\$76,000/year (Annual cost to monitor and inspect 1700 onsite systems beginning in year 2 and allowing for 100 new systems/year) - approximate.

Fiscal Effects on Local Government

- o Impact on fiscal resources would depend on choice of financing mechanism. Costs of first year effort would probably require direct grants.

- o An example annual charge: \$150/yr. (Stinson Beach) per residence.

Impacts same as noted for Action 11.2.

Housing Supply

- o Existing housing rehabilitation and maintenance costs may increase (example costs: system reconstruction-\$1300, modification for pump-out access - \$260, pumpout costs - \$50-65).

Other social impacts are the same as noted for Policy 11.

See Impact Assessment for Municipal Element. A project's inclusion on the 20 year project list does not absolve the potential grantee from EIR/EIS requirements for funding under the Federal Water Pollution Control Act Amendments and the Clean Water Grants programs.

Impacts same as noted for Policy 11.

Financial

Direct Public Costs of Implementation

Office of Appropriate Technology-on-going research funds.

Institutional

- o No impacts.

Impacts same as noted for Policy 11.

Impacts same as noted for Policy 11.

Assessment should be part of any amendment process of the Federal and State grants programs. In general, if construction of publically managed onsite disposal system is subsidized by Federal and State grant monies, one effect is to return taxpayers monies without bias toward any one method of treatment. Where such grant provision subsidizes second home developments, certain sectors of the population are disproportionately benefited. Payment for operation and maintenance costs would not be altered by grant amendments (i.e. they would continue to be paid for by user charges of one type or another). Note that eligibility amendments would result in reassessment of the 20-year project list as a part of the Continuing Planning Process.

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
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Policy 12

MONITOR EFFECTIVENESS OF EXISTING ARRANGEMENTS FOR PREVENTING AND DEALING WITH OIL AND CHEMICAL SPILLS IN BAY AREA.

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> <ul style="list-style-type: none"> o No impacts. <u>Water Quality</u> <ul style="list-style-type: none"> o Reduced incidence of water pollution from hazardous materials spills. o Reduced incidences of impairment of beneficial uses of bay waters. <u>Physical Resources</u> <ul style="list-style-type: none"> o Reduced incidence of spills and improved spill clean-up would protect: <ul style="list-style-type: none"> - aquatic community - flora and fauna-wildlife habitats (marshes, salt ponds) - water-related recreation use and potential o Impacts on solid waste management may result: <ul style="list-style-type: none"> - spill clean-up often requires disposal in Class I sites (See Hazardous Waste Element of Solid Waste Management Plan) <u>Energy</u> <ul style="list-style-type: none"> o No impacts. <u>Amenities</u> <ul style="list-style-type: none"> o Indirect visual amenity benefits associated with reduced incidence of oil spills and improved containment and disposal. 	<u>Financial</u> <p>Direct Public Costs of Implementation</p> <ul style="list-style-type: none"> o See below <p>Fiscal Effects on Local Governments</p> <ul style="list-style-type: none"> o Local spill prevention and clean-up programs may require commitment of local fiscal resources. <u>Institutional</u> <ul style="list-style-type: none"> o Direct impacts on intergovernmental responsibility and coordination - requires cooperation of numerous Federal, State, regional and local agencies. 	<u>Production of Goods and Services</u> <ul style="list-style-type: none"> o Employment- Public and private sector job opportunities may result from improved enforcement and new requirements. <u>Income and Investment</u> <ul style="list-style-type: none"> o New requirements and enforcement of spill prevention programs may require private capital investments. o Profits of firms bearing costs of new requirements or improved enforcement should not be affected, assuming costs will be passed on to the consumer. <u>Consumer Expenditures</u> <ul style="list-style-type: none"> o Increased prices of goods and services (especially petroleum and chemical based products) may result when costs incurred to comply with spill prevention programs are passed on to the consumer. 	<u>Housing Supply</u> <ul style="list-style-type: none"> o No impact. <u>Physical Mobility</u> <ul style="list-style-type: none"> o No impact. <u>Health and Safety</u> <ul style="list-style-type: none"> o Reduced potential for public exposure to health and safety risks. <u>Sense of Community</u> <ul style="list-style-type: none"> o No impact. <u>Equity</u> <ul style="list-style-type: none"> o No impact. <u>Urban Patterns</u> <ul style="list-style-type: none"> o No impact.

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 12.1 Establish a task force to investigate non-petroleum hazardous chemical spill problems in offshore waters, bays and estuaries of California, and make recommendations.	Task force shall include representatives of the commercial shipping and fishing industry; others knowledgeable of chemical spills and their prevention, as well as public interest groups. Study to concentrate on spills of chemicals other than petroleum.	SWRCB	January 1979	Porter-Cologne Act.	\$20,000 for one year	\$20,000 for one year	Federal 208 funds; State program funds	SWRCB action
Action 12.2 Investigate cleanup and preventive measures for inland spills of all potentially hazardous or toxic chemicals in the Bay Area and make recommendations for improvement.	A one time study of inland spill prevention and clean-up activities and responsibilities. Further action will depend on results of study.	Independent consultant hired by ABAG.	January 1979		\$80,000 for one year	\$80,000 for one year	Federal 208 funds	Voluntary.
Action 12.3 Develop local roadway and railbed spill containment and cleanup capabilities. (This Action could include part of Action 13.4 of the Solid Waste Management Plan.	Local fire departments would prepare plans for dealing with a variety of spilled chemicals.	Local fire departments; County Offices of Emergency Services	By December, 1978.	Local government enabling legislation.	Undetermined	Undetermined	Local funds.	Voluntary.
Action 12.4 Reevaluate need to upgrade vessel traffic system in Carquinez Strait and N. San Pablo Bay.	A report would be prepared examining the addition of high-resolution radar coverage to the subject areas.	U.S. Coast Guard.	By June, 1979.	Ports and Waterways Safety Act of 1972.	\$1,000	\$1,000	Federal funds.	Voluntary.

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
Impacts same as noted for Policy 12.	<u>Financial</u> Direct Public Costs of Implementation (1979) \$20,000 for one year only. <u>Institutional</u> o Report may recommend statutory changes, new regulations.	Impacts same as noted for Policy 12.	Impacts same as noted for Policy 12.
Impacts same as noted for Policy 12.	<u>Financial</u> Direct Public Cost of Implementation (1979) \$80,000 for one year only. Other impacts same as noted for Policy 12.	Impacts same as noted for Policy 12.	Impacts same as noted for Policy 12.
Impacts same as noted for Policy 12.	<u>Financial</u> Direct Public Costs of Implementation Costs of training programs depend on duration of the classes, number of individuals selected for training, type of program. Fiscal Effect on Local Government o Local fiscal resources may be required to finance program development and training (cost/ fire department). <u>Institutional</u> o Temporary impacts associated with fire department staff time for program development and training.	Impacts same as noted for Policy 12.	Impacts same as noted for Policy 12.
<u>Air Quality</u> o No impacts. <u>Water Quality</u> o Reduced tanker accidents expected from traffic system should benefit water quality if radar system is recommended. o Reduced chances of impaired uses of San Pablo Bay and Carquinez Straits if radar system is added. <u>Physical Resources</u> o Reduced potential for spills from tanker accidents should reduce risks to physical resources. Example of resources which could be impacted: wildlife refuges, water-flow management areas, habitats of rare and endangered species, anadromous fish migration routes, other fish and shellfish resources, water-related recreation resources. <u>Energy</u> o No impacts. (Energy required to operate additions to radar system would be small increment.)	<u>Financial</u> Direct Cost of Implementation (1979) \$10,000 (Cost to prepare a report on the cost-effectiveness of additional radar facility) Fiscal Effects on Local Governments o No impacts. <u>Institutional</u> o No impact.	<u>Production of Goods and Services</u> o Employment- Minor short-term increase. <u>Income and Investment</u> o No impact. <u>Consumer Expenditures</u> o No impact.	<u>Housing Supply</u> o No impact <u>Physical Mobility</u> o No impact. <u>Health and Safety</u> o No impact. <u>Sense of Community</u> o No impact. <u>Equity</u> o No impact. <u>Urban Patterns</u> o No impact.

WATER QUALITY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 12.5 Unless preempted by Federal law, enact State Legislation to increase liability of spillers and compensate for oil spill damage.	Bills introduced in the 1977-78 Regular Session of the State Legislature include SB536 and SB841.	U.S. Congress.	On-going.	U.S. Constitution.	Undetermined	Undetermined		Voluntary.
Action 12.6 Promulgate final Federal regulations proposing improvements in requirements for navigational aids and tanker construction.	Proposed DOT standards issued 13 May '77 include: <ul style="list-style-type: none"> o Double bottoms on new large tankers. o Segregated ballast on new large tankers. o Inert gas systems on all crude oil tankers. o Backup radar systems with collision avoidance equipment on all large tankers. o Improved emergency steering standards for all tankers. Also S.682	U.S. Department of Transportation, U.S. Congress.	On-going.	Ports and Waterways Safety Act of 1972.	Undetermined (if proposed standards are finalized, the initial construction cost to bring U.S. vessels up to standards estimated to be \$120,000,000).	Undetermined	Local funds supplemented by State and Federal Grants.	

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
Impacts same as noted for Policy 12.	Impacts same as noted for Policy 12.	<u>Consumer Expenditures</u> o New requirements will result in increased prices of consumer products. Other economic impacts are the same as noted for Policy 12.	Impacts same as noted for Policy 12.

Specific impacts of Federal and State legislation and regulations must be assessed by responsible Federal and State agencies, as well as legislative bodies.

Water Supply Management Plan

recommendations

Water Supply Management Plan recommendations

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL * COST/YEAR OF RECOMMENDED ACTION	PORTION OF * TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
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Policy 1

PROVIDE A SAFE AND RELIABLE WATER SUPPLY TO ALL CITIZENS AT A MINIMUM MONETARY AND ENVIRONMENTAL COST.

* This column presents annualized costs. The annualized cost is the amount of money per year that would amortize the total cost of the program over the period 1978-2000 at a 6-3/8% interest rate.

Action 1.1

Establish water resource management coordinating committee (WMCC).

The WMCC is requested to consider the following:

- Evaluate the advantages and disadvantages of increased interagency water transfer.
- Evaluate the costs and benefits of accepting restrictions on water use during droughts.
- Evaluate need for new water supply projects, including interties, prior to

Initially the WMCC will include management representatives of all major water agencies in the bay region. The goal will be to meet as an informal committee to discuss and define the region's need for cooperative water supply management and to determine whether a permanent organizational structure and what membership would be appropriate for an ongoing regional effort. The committee will include at least one agency from each county. In counties where there is no single major agency the agencies in each county will determine their method of representation on the WMCC.

WMCC

July 1978

Informal coordination followed by possible joint exercise of powers agreement to be decided by WMCC.

Undetermined

Undetermined.

To be determined by WMCC; may be dues paid by committee members or contribution of individual agency's staff time.

Voluntary

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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Air Quality

- o See actions.

Water Quality and Quantity

- o Should assure adequate supplies of high quality water.
- o Specific projects may adversely and beneficially affect water quality and quantity of sources.

Physical Resources

- o Provision of water supplies affects supply and use of land related resources (agriculture, wildlife habitats).
- o Provision of water supplies can increase agricultural productivity over that of dry-land farming.

Energy

- o Water projects require energy for construction and operation of facilities and water distribution.
- o Development accommodated may indirectly increase local energy demands.
- o Supply and transfer projects may augment energy supplies.

Amenities

- o Irrigated landscaping provides aesthetically pleasing surroundings in areas such as parks, golf courses, highway rights-of-way, yards.

Financial

- o May require capital investments for necessary facilities.

Institutional

- o May require intergovernmental cooperation (Joint Powers Agreements, Memoranda of Understanding) and additional legal capabilities.

Production of Goods and Services

- o Assures continued production by businesses dependent upon adequate fresh water supplies.
- o Assures continued agricultural production on irrigated land.

Income and Investment

- o May require investment funds for capital facilities.
- o Promotes healthy economic climate which attracts investment funds.
- o Aids in maintaining income by assuring production will not be restricted due to lack of water supplies.

Consumer Expenditures

- o Change (increase vs. decrease) in water prices would vary and should be considered in decisions on supply and transfer projects.

Housing Supply

- o May accommodate increased housing starts in areas that were limited by water shortage.

Physical Mobility

- o No impacts.

Health and Safety

- o Promotes health of population through provision of safe water supplies.

Sense of Community

- o No impacts.

Equity

- o No impacts.

Urban Patterns

- o Adequate water supplies favor irrigated agriculture over dry-land farming and grazing.

Note: Impacts presented with policy are common to all actions under that policy.

Impacts same as noted for Policy 1.

Financial

Direct Public Cost of Implementation

- o Undetermined but small

(Total cost to local water supply agencies to maintain committee.)

Institutional

- o Requires cooperation of numerous water supply agencies.

Impacts same as noted for Policy 1.

Impacts same as noted for Policy 1.

WATER SUPPLY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
<p>1985 giving priority to water conservation and reclamation.</p> <p>d. Prepare a drought contingency plan.</p> <p>e. Conduct survey of status, use and plans for all groundwaters in region.</p> <p>f. Prepare regional groundwater basin management plan.</p> <p>g. Evaluate the quality of water for domestic use including an examination of the effect of further withdrawals of freshwater from the Delta and impacts which percolation of imported water may have on quality of underground water supplies in the region.</p>								

Policy 2

ENCOURAGE WATER SAVING.

ENVIRONMENTAL IMPACTS

INSTITUTIONAL/FINANCIAL IMPACTS

ECONOMIC IMPACTS

SOCIAL IMPACTS

Air Quality

- o No impacts.

Water Quality and Quantity

- o An estimated 6.5% reduction in water use by existing development or an average of 1.7 gpcd with moderate conservation practices. n 1-
- o Estimated 21% reduction in water needs of new developments or an average of 16.6 gpcd savings. g s on.
- o With moderate conservation practices existing supplies could serve greater population as approximately 120 mgd water could be saved by the year 2000.
- o Suitability of wastewater for reclamation and reuse is reduced.

Physical Resources

- o If the need for new storage facilities is reduced by conservation practices, the adverse effects on the physical resource base due to supply development would be eliminated.

Financial

- o See actions.

Institutional

- o May require additional legal capabilities (new legislation) to implement.
- o Would require revisions in building codes.
- o May require renegotiation of contracts between wholesalers and distribution agencies as current contracts and price structures do not encourage water conservation.

Energy

- o Reduced demand for energy necessary to supply water; 10% reduction in water use could result in a 5-10% reduction in energy use.

Amenities

- o Effective water conservation would require changes in outside water use for residential, commercial and recreational purposes.

Production of Goods and Services

- o Increase in production of water conserving devices.
- o Increased need for plumbing services to repair old systems.
- o Agricultural production costs may decrease as water saving practices are used; an estimated 100,000 acre feet per year could be saved or 100 mgd in the year 2000.

Income and Investment

- o Initial capital investments would be necessary for an effective conservation program; unit costs for Bay Area agriculture would be approx. 49¢/acre-ft. or 15¢/kgal.

Urban Patterns

- o No impacts.

Housing Supply

- o Existing housing costs should not be affected--retro-fitted conservation devices average \$1/home.
- o Increased maintenance of older and substandard homes.
- o Minor cost increase to new homes; moderate conservation practices could mean \$30/unit.

Physical Mobility

- o No impacts

Health and Safety

- o No impacts

Sense of Community

- o No impacts

Equity

- o Agricultural conservation costs may put Bay Area farmers at comparative but temporary disadvantage.

WATER SUPPLY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 2.1 Implement residential water savings programs in existing developments including homes, businesses, industries and recreational areas	"Moderate" residential water savings programs emphasizing retrofit of water saving devices are recommended. 5-10% savings can be achieved in this way.	Water supply agencies/homeowners, private companies.	Dec. 1978	Water agency enabling legislation	\$1,420,000	\$1,240,000 Costs are for actions 2.1 & 2.2.	User charges and private funds	Voluntary
Action 2.2 Implement water savings programs in new developments, including homes, businesses, industries and recreational areas.	"Moderate" water savings programs emphasizing the building-in of devices into new construction are recommended. 10-20% savings can be achieved in this way.	Water supply agencies, developers, private companies, public institutions	Dec. 1978	Water agency enabling legislation.	Included in 2.1.	Included in 2.1	User charges and private funds.	Voluntary
Action 2.3 Revise and update building codes to include water saving devices in new construction.		Cities, counties and International Conference of Building Officials	Continuous from Dec. 1978		Undetermined.	Undetermined.	City and county funds	In part voluntary, in part required by State law.
Action 2.4 Evaluate need for regionally coordinated public information/education program.		WMCC	Dec. 1978		Undetermined	Undetermined	WMCC funds (See action 1.1.)	Voluntary

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
Impacts same as noted for Policy 2.	<u>Financial</u> <ul style="list-style-type: none"> o Uncalculated cost for public agencies to reduce their water use. <u>Institutional</u> <ul style="list-style-type: none"> o Water supply agencies would need to promote conservation programs. 	<u>Consumer Expenditures</u> <p>Direct Private Cost of Implementation</p> <ul style="list-style-type: none"> o (1980) \$1.00/household o (1980) \$1,770,000 (estimated total cost of flow restrictors on existing housing). <p>Other economic impacts are the same as noted for Policy 2</p>	Impacts same as noted for Policy 2.
Impacts same as noted for Policy 2.	Impacts same as noted for Action 2.1.	<u>Production of Goods and Services</u> <p>Employment - a small employment increase of less than 80 for the manufacture and installation of water conserving devices.</p> <u>Income and Investment</u> <ul style="list-style-type: none"> o No impacts. <u>Consumer Expenditures</u> <p>Direct Private Cost of Implementation</p> <ul style="list-style-type: none"> o \$30 per new dwelling unit for installation of moderate plan conservation devices. o (1975-2000) \$26,680,000 (estimated total cost to new housing). 	Impacts same as noted for Policy 2.
Impacts same as noted for Policy 2.	<u>Financial</u> <p>Direct Public Cost of Implementation</p> <ul style="list-style-type: none"> o (1978) \$45,000 (estimated cost to change building codes). o These activities fall within normal duties of city and county government. <u>Institutional</u> <ul style="list-style-type: none"> o City and county governments must investigate devices and pass appropriate ordinances. 		Impacts same as noted for Policy 2.
Impacts same as noted for Policy 2.	<u>Financial</u> <p>Undetermined.</p> <u>Institutional</u> <ul style="list-style-type: none"> o No impacts. 	<u>Consumer Expenditures</u> <ul style="list-style-type: none"> o Potential tax incentives can mean temporary savings to consumers. <p>Other economic impacts are the same as noted for Policy 2.</p>	Impacts same as noted for Policy 2.

WATER SUPPLY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 2.5 Enact legislation to provide incentives for retrofitting water saving devices in existing homes, businesses, etc., and for conserving agricultural water.		State Legislature/US Congress	Continuous from Dec. 1978	State and Federal constitutions	Undetermined.	Undetermined.	Federal and State budgets.	ABAG advocacy
Action 2.6 Make public as economically as possible data on annual water use and conservation in the region.		WMCC/ water agencies, DWR, media	Annually		Undetermined	Undetermined		
Action 2.7 Evaluate changing water rate structures to encourage water saving.		WMCC to consider, water agencies to act.	Dec. 1978	Water agency enabling legislation.	Undetermined.	Undetermined	User charges.	Voluntary
Action 2.8 Encourage agricultural water conservation program.	Water could be saved if farmers adopted more efficient irrigation methods. It would only be feasible on a State-wide basis, so State legislation would be necessary.	State Legislature		State constitution	Undetermined	Undetermined	Improvements to irrigation systems would be financed with private funds.	Voluntary

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
Impacts same as noted for Policy 2.	<u>Financial</u> Direct Public Cost of Implementation <ul style="list-style-type: none"> o Uncalculated cost of enacting legislation o Government revenues lost to tax incentives may ultimately be recouped in other taxes. o If legislation features tax incentives -- the cost to government is uncalculated. Institutional impacts are the same as noted for Policy 2	<u>Consumer Expenditures</u> <ul style="list-style-type: none"> o Potential tax incentives can mean temporary savings to consumers. Other economic impacts are the same as noted for Policy 2.	Impacts same as noted for Policy 2.
Impacts same as noted for Policy 2.	<u>Financial</u> Direct Public Cost of Implementation <ul style="list-style-type: none"> o Undetermined o Ultimate funding source is water charges paid to water agencies. <u>Institutional</u> <ul style="list-style-type: none"> o No impacts. 	<u>Consumer Expenditures</u> <ul style="list-style-type: none"> o No impacts Other economic impacts are the same as noted for Policy 2	Impacts same as noted for Policy 2.
Impacts same as noted for Policy 2.	<u>Financial</u> Small public cost for needed studies <u>Institutional</u> <ul style="list-style-type: none"> o No impact. 	No impacts	Impacts same as noted for Policy 2.
<u>Water Quality and Quantity</u> <ul style="list-style-type: none"> o Estimated 15% saving in projected year 2000 agricultural water needs or 30% reduction in use over no conservation reductions. Other environmental impacts are the same as noted for Policy 2.	<u>Financial</u> <ul style="list-style-type: none"> o No impacts. <u>Institutional</u> <ul style="list-style-type: none"> o Reduced demands upon water supplied by irrigation districts. 	<u>Consumer Expenditures</u> Direct Private Cost of Implementation <ul style="list-style-type: none"> o (1980) \$62,800,000 (estimated capital expenditures by farmers). o Increased prices of farm products unless conservation savings offset potentially higher cost of water in future. Other economic impacts are the same as noted for Policy 2.	Impacts same as noted for Policy 2.

WATER SUPPLY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
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Action 2.9

Establish a program to promote landscaping appropriate to the Bay Area climate.

Plants native to the Bay Area are adapted for survival in the prevailing climate. They do not require large quantities of water. This action might be implemented as part of a regionally coordinated public education/information program. (See Action 1.1.)

WMCC, water agencies

Dec. 1978

Undetermined

Undetermined

Voluntary

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Water Quantity</u> o Long-term reduction in demand for landscape irrigation water.	<u>Financial</u> Small public cost for education/information program.	No impact	Impacts same as noted for Policy 2.

WATER SUPPLY MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 3 ENCOURAGE SAFE AND COST-EFFECTIVE WASTEWATER RECLAMATION								
Action 3.1 Conduct regional reclamation study.		Joint powers agency already being formed	Nov. 1977	Porter-Cologne Act & Federal Water Pollution Control Act	\$2 million for 3-year study.	-0-	Already budgeted. EPA & State grants.	
Action 3.2 Construct cost-effective wastewater reclamation projects.		Wastewater agencies	Continuous		\$10,200,000	-0-	EPA and State grants, user charges and revenue from sale of water.	
Action 3.3 Expedite studies and standard setting for use of reclaimed wastewater for recharge and other purposes.		State Health Dept.	Continuous	Health & Safety Code.	Undetermined	Undetermined	Budget action by State Legislature.	

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> <ul style="list-style-type: none"> o No impacts. <u>Water Quality and Quantity</u> <ul style="list-style-type: none"> o Relieves higher quality water supplies for more demanding purposes--e.g., potable supplies. o With reclamation, existing and proposed water supplies can serve greater population. o Total amount of water ultimately saved by reuse in Bay Area would be approximately 100 mgd. <u>Physical Resources</u> <ul style="list-style-type: none"> o Reclaimed waters can be used to develop new agricultural lands and to supplement irrigation necessary for lands currently in production. o Reclaimed water could be used for groundwater recharge, marsh enhancement and recreational lakes. 	<u>Financial</u> <ul style="list-style-type: none"> o See actions. <u>Institutional</u> <ul style="list-style-type: none"> o Requires cooperation of local, regional and state agencies. o Requires supportive regulations from State Health Department. <u>Energy</u> <ul style="list-style-type: none"> o Energy is consumed in advanced treatment of wastewater for reclamation (5 mgd plant uses approximately 360,000 kw hrs. electricity in a 6 month period). o Energy needs for distribution of reclaimed water may be lower if alternative is importing water over long distances. o 10% reduction in water use yields 5-10% reduction in energy use. <u>Amenities</u> <ul style="list-style-type: none"> o Irrigating parks, golf courses and highway rights-of-way with reclaimed water frees potable water for other uses. 	<u>Production of Goods and Services</u> <p>Employment- Possible increase in employment as a result of development of markets for reclaimed water--certain increase in treatment plant operator employment.</p> <u>Income and Investment</u> <ul style="list-style-type: none"> o Increase in wages for those affected by employment increase. o Increase in income of some engineering firms. o Increased investments for water reclamation facilities and distribution systems. <u>Consumer Expenditures</u> <ul style="list-style-type: none"> o Increased availability of water supplies to agriculture and industry may keep production costs and consumer prices down. <u>Urban Patterns</u> <ul style="list-style-type: none"> o No impacts. 	<u>Housing Supply</u> <ul style="list-style-type: none"> o Increased water supplies to agriculture and industry may release potable supplies for domestic use. o Increased potable supplies in water short areas might permit new housing starts. <u>Physical Mobility</u> <ul style="list-style-type: none"> o No impact. <u>Health and Safety</u> <ul style="list-style-type: none"> o No impacts if reclaimed water is adequately treated. o Uses of reclaimed water are regulated by State Health Department. <u>Sense of Community</u> <ul style="list-style-type: none"> o No impacts. <u>Equity</u> <ul style="list-style-type: none"> o No impacts.
Impacts same as noted for Policy 3.	<u>Financial</u> <p>Direct Public Cost of Implementation</p> <ul style="list-style-type: none"> o (1978) \$2,000,000 o Matching funds requirement may cost the WMCC from \$500,000 to \$1 million. <p>Other institutional impacts are the same as noted for Policy 3.</p>	<u>Production of Goods and Services</u> <p>Employment - Some study funds will be passed to local water supply agencies or private consulting firms benefitting employment in those areas and for the WMCC staff.</p> <p>Other economic impacts are the same as noted for Policy 3.</p>	Impacts same as noted for Policy 3.
Impacts same as noted for Policy 3.	<u>Financial</u> <p>Direct Public Cost of Implementation</p> <ul style="list-style-type: none"> o (1977-2000) \$133,140,000 (estimate of construction costs expended by the year 2000) o (2000) \$5,330,000/year (estimated operating and maintenance cost in the year 2000 when all projects are built) <p>Other institutional impacts are the same as noted for Policy 3.</p>	<u>Production of Goods and Services</u> <ul style="list-style-type: none"> o Employment - approximately 2000 temporary and 200 permanent jobs would result from construction and operation of reclamation projects. <u>Income and Investment</u> <ul style="list-style-type: none"> o Increased wages of individuals benefitting from job opportunities. o May require capital investments by industry to undertake reclamation. 	Impacts same as noted for Policy 3.
Impacts same as noted for Policy 3.	No impact.	No impact.	No impact

Solid Waste Management Plan

recommendations

Solid Waste Management Plan recommendations

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 1 THE REGIONAL SOLID WASTE MANAGEMENT PLAN SHOULD PRIMARILY BE BASED ON THE COUNTY SOLID WASTE MANAGEMENT PLANS, COORDINATED WITH STATE PLANNING, AND INTEGRATED WITH AREAWIDE ENVIRONMENTAL MANAGEMENT PLANNING; PRIMARY RESPONSIBILITY FOR ADEQUATE SOLID WASTE MANAGEMENT SHALL REST WITH LOCAL GOVERNMENTS.								
Action 1.1 Carry out and update county plans as the basis of the regional solid waste management plan.	Carry out county solid waste management plans as part of the regional solid waste management plan.	Counties, with participation from cities and other local jurisdictions.	Ongoing	State Senate Bill 5 (SB 5)	\$ 675,000 ^a (\$7,870,000 1978-2000) \$215,000,000 ^c (\$570,000,000 ^c 1978-1980)	0	State and local funds.	State Solid Waste Management Board (SSWMB) may take legal action if plans are not implemented, or shall not approve any request for State or Federal financial assistance for any solid waste management project not in conformance with the approved county plans.
Action 1.2 Coordinate the regional plan with State and areawide planning.	Coordinate the regional solid waste management plan with State planning and areawide environmental management planning. Incorporate changes in county plans and on-going planning activities of other State, regional, and local agencies, and include more detailed planning for regional issues. Monitor RCRA regulations and make information available to counties on impacts and opportunities.	ABAG with assistance from an inter-county and inter-agency coordinating committee.	Ongoing	SB 5; FWPCA Section 208; SSWMB Resolution 76-38; RCRA; SB 424 (1977)	\$65,000 ^a (\$757,000 ^a 1979-2000)	\$ 65,000 ^a (\$757,000 ^a 1979-2000)	Federal and State funds; ABAG dues.	Existing EPA and SSWMB requirements will ensure implementation.
^a Public cost. ^b Private cost. ^c Public and private costs. Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.								

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> o Indirect Impact; county plans require landfills to meet standards for dust and odor control. o Direct Impact as a result of increased emission from long-haul trucks to distant landfills recommended in some county plans. <u>Water Quality</u> o Direct Impact; county plans require landfills to meet standards for protection of ground and surface waters. <u>Physical Resources</u> o Direct benefits in most aspects of waste management. o Direct benefits in resource recovery by increasing commitment of local agencies. <u>Energy</u> o Direct benefits in energy production since some county plans recommended energy recovery from solid waste as an alternative in the future. <u>Amenities</u> o Noise associated with solid waste facilities construction and operation. <p>*Note: For more information on impacts of Individual County Plans, see EIRs done for each one.</p>	<u>Financial</u> o Direct Cost-Public: (Administrative and regulatory costs-funds committed) Counties(9) 1978-2000 \$675,000/year (for region) o Fiscal Effects on Local Government -Minor impacts on the property tax rate. -Franchise tax revenues may be increased. -New facilities may result in additional fees and other user charges. -Financing of energy recovery facilities may depend on Federal and State grants. <u>Institutional</u> o Location of certain facilities may not be accepted by the public. o Implementation of county plan may require JPA among the county and cities within the county and also agreements among private and public agencies. o County staff time would be required to carry out the plans.	<u>Production of Goods and Services</u> o Scavenger companies may have to improve services to meet standards or may have to expand service area. o Employment - Temporary and permanent increase in employment due to facilities construction, expanded collection service, compliance with State standards, and operation of new facilities. <u>Income and Investments</u> o Private and public investment would be needed for new facilities associated with resource recovery, transfer stations, and landfills. o Possible temporary decrease in profits of scavenger companies due to capital investments. <u>Consumer Expenditures</u> o Costs for implementing county plans would be passed on to the public that receives garbage collection service or that dumps at landfills.	<u>Housing Supply</u> o No Impact. <u>Physical Mobility</u> o No Impact. <u>Health and Safety</u> o Compliance with standards would reduce health and safety hazards associated with solid waste. <u>Sense of Community</u> o No Impact. <u>Equity</u> o No Impact. <u>Urban Patterns</u> o No Impact.

<u>Air Quality</u> o Indirect Impact since the updated regional plan will consider air quality impact of large-scale energy recovery systems. <u>Water Quality</u> o Direct Impact since the updated plan will include control measures for landfills to protect ground and surface water quality. <u>Physical Resources</u> o Direct benefits in solid waste management. o Direct benefits in resource conservation since the updated plan would include action programs for waste reduction, source separation, and resource recovery. <u>Energy</u> o Indirect benefits due to resource conservation and reduction of energy demand. <u>Amenities</u> o Indirect Impact due to noise associated with solid waste facilities construction and operation recommended in the plan.	<u>Financial</u> o Direct Cost-Public: ABAG 1979-2000 \$65,000/yr. (\$757,000) o Fiscal Effects on Local Government -New facilities may result in additional fees and other user charges. -Financing of recommended programs and facilities may depend on Federal and State grants. <u>Institutional</u> o Location of certain recommended facilities may not be accepted by the public. o Implementation of regional plan may require JPA among cities and counties and agreements among private and public agencies.	<u>Production of Goods and Services</u> o Employment - Temporary and permanent increase in employment due to recommended programs and facilities construction. <u>Income and Investment</u> o Same as Action T.1 <u>Consumer Expenditures</u> o Costs for implementing the plan would be passed on to the public that receives garbage collection service or that dumps at landfills.	<u>Housing Supply</u> o No Impact. <u>Physical Mobility</u> o No Impact. <u>Health and Safety</u> o Compliance would reduce health and safety hazards associated with solid waste. <u>Sense of Community</u> o No Impact. <u>Equity</u> o No Impact. <u>Urban Patterns</u> o No Impact.
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SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 2 THE AMOUNT OF MUNICIPAL WASTES GOING TO BAY AREA LANDFILLS SHOULD BE REDUCED BY 30% BY 1982, WITH EMPHASIS ON JOB-INTENSIVE, INEXPENSIVE, SOURCE SEPARATION/RECYCLING MEASURES.								
Policy 3 THE REGIONAL SOLID WASTE MANAGEMENT PLAN SHOULD FOCUS ON MULTI-JURISDICTIONAL PROJECTS FOR WASTE REDUCTION AND RECOVERY OF MATERIALS AND ENERGY FROM SOLID WASTE.								
Action 3.1 Review proposed resource recovery projects.	Review proposed resource recovery projects including large-scale waste combustion projects to ensure consistency with county and regional solid waste management and other environmental goals and standards.	EPA, SSWM8, ABAG, State Clearing-house.	Ongoing	Office of Management and Budget-Circular A-95; FWPCA Section 208; SB 424 (1977)	6,000 ^a (\$65,000 ^a 1978-2000)	0	Federal and State funds; ABAG dues.	Agencies will carry out existing review authorities.
^a Public cost. ^b Private cost. ^c Public and private costs. Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.								

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
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The impacts of this policy are covered under the impact assessment of the following Actions: 6.1, 6.2, 7.1, 7.2, 8.1, 8.2, 9.1, 9.2, 10.1, 10.2, 10.3 and 10.4.

Air Quality
o Indirect benefits since the review would ensure consistency of proposed projects with air quality goals and standards.

Water Quality
o Indirect benefits since the review would ensure consistency of proposed projects with water quality goals and standards.

Physical Resources
o Direct impact on solid waste management.

Energy
o Indirect benefits since the proposed projects would recover energy from solid waste.

Amenities
o Direct benefits since the review would ensure mitigation measures for impacts related to amenities.

Financial
o Direct Cost-Public:
(Administrative costs-funds committed)
ABAG - \$650/year
1978-2000 (For Region)

Other Reviewing Agencies (7)-
1978-2000 \$5,000/year
(For Region)

Institutional
o No Impact.

Production of Goods and Services
o No Impact.

Income and Investments
o No Impact.

Consumer Expenditures
o No Impact.

Housing Supply
o No Impact.

Physical Mobility
o No Impact.

Health and Safety
o Indirect benefits since the review would ensure compliance of proposed projects with health and safety standards.

Sense of Community
o No Impact.

Equity
o No Impact.

Urban Patterns
o No Impact.

SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	IMPLEMENTING AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 3.2 Develop additional information needed for resource recovery planning.	Develop additional information that would lead to construction of a network of new resource recovery facilities through studies and demonstration projects, such as: <ul style="list-style-type: none"> o Air quality, water quality, and other environmental effects of large scale energy recovery systems. o The impasse between overall long-term environmental benefits of waste-to-energy systems and air quality regulations. o Technical feasibility as well as financial and social impacts of resource recovery projects. o Size and location of potential markets for the 	EPA, SSWMB in conjunction with cities, counties and ABAG.	1982	AB 1395 (1976); RCRA; SB 424 (1977); SB 650 (1977)	\$ 996,000 ^a (\$11,300,000 ^a 1978-1982)	0	Federal and State funds; SB 650 (1977).	EPA will implement RCRA; SSWMB will implement RCRA, AB 1395, and SB 650
Policy 4 ALL SOLID WASTE DISPOSAL SITES MUST BE SITUATED, DESIGNED, OPERATED, AND EVENTUALLY CLOSED DOWN IN A PROPER MANNER TO PROVIDE PROTECTION TO THE SURFACE AND GROUND WATER QUALITY AND THE NATURAL ENVIRONMENT AS WELL AS PROTECTION OF PUBLIC HEALTH AND SAFETY.								
Action 4.1 Accelerate the adoption and updating of the Waste Discharge Requirements.	Accelerate the adoption and updating of the Waste Discharge Requirements for all landfill sites.	California Regional Water Quality Control Board (RWQCB), with cooperation from the SSWMB.	Dec. 1978	California Water Code Sections 13300 and 14040; California Administrative Code, Title 23, Chapter 3, Subchapter 15.	184,000 ^c (\$2,150,000 ^c 1978-2000)	0	State general funds.	As a part of an agreement to be negotiated between ABAG and RWQCB. Sections 1008 and 4004 (a) of RCRA.
■ Public cost. b Private cost. c Public and private costs. Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.								

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air and Water Quality</u> o Indirect benefits since resource recovery facilities would be designed to meet air and water quality standards based on the newly developed information.	<u>Financial</u> o Direct Cost-Public: (Administrative costs - funds committed) EPA and SSMB 1978-1982 \$966,000/year (For Region)	<u>Production of Goods and Services</u> o Same as Action 1.2 <u>Income and Investment</u> o Private investment may be needed for the development of new information.	No Impact
<u>Physical Resources</u> o Direct benefits in solid waste management especially in resource recovery planning.	<u>Institutional</u> o Development of information may require JPA among cities and counties and agreements among private and public agencies	<u>Consumer Expenditures</u> o No impact.	
<u>Energy</u> o Same as Action 1.2.			
<u>Amenities</u> o No direct impact.			

<u>Air Quality</u> o Indirect impacts since compliance with the requirements may result in reduction of dust and odor at landfills.	<u>Financial</u> o Direct Cost-Public: (Administrative and regulatory costs-funds committed) RWQCB - 1978-2000 \$15,000 (Adopt requirements) 1979-2000 \$15,000/year (Update requirements)	<u>Direct Cost-Private</u> o Indirect impact on landfill site operators related to meeting requirements: 1978-1979 \$1,300,000 (total cost to meet new and revised requirements for 2 years) 1980-2000 \$80,000/year (meeting requirements)	<u>Housing Supply</u> o No Impact.
<u>Water Quality</u> o Direct benefits since compliance with requirements would result in protection of surface and ground water quality.			<u>Physical Mobility</u> o No Impact.
<u>Physical Resources</u> o Indirect benefits for surrounding ecosystems, agricultural lands due to increased protection of surface and ground water quality. o Indirect impacts on landfill management practices due to compliance with requirements. o Indirect temporary impacts on landfill site operations resulting from on-site construction to meet requirements.	<u>Institutional</u> o Direct impact on RWQCB because it may have to speed up the adoption of requirements.	<u>Production of Goods and Services</u> o Indirect impact resulting from interruption of landfill operations; extent would depend on site.	<u>Health and Safety</u> o Indirect impacts on public health by elimination of hazards from sub-standard landfills
<u>Energy</u> o Indirect impacts on energy demands due to energy required for construction.		<u>Income and Investment</u> o Direct impact on landfill site owners and operators due to required improvements to sites.	<u>Sense of Community</u> o No Impact.
<u>Amenities</u> o Indirect benefits since compliance with the requirements may result in reduction of litter at or near the landfills.		<u>Consumer Expenditures</u> o Indirect impact on landfill site users due to increase in gate fees.	<u>Equity</u> o No Impact.
			<u>Urban patterns</u> o No Impact.

SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 4.2 Issue and enforce permits for solid waste facilities and disposal sites.	Issue and enforce permits for the operation of solid waste and hazardous waste facilities and disposal sites that are consistent with county and regional solid waste management planning.	California Solid Waste Management Board, City and County enforcement agencies, State and local health departments.	August 1977 Ongoing	AB 2439 (1977); AB 1593 (1977).	\$ 2,100,000 ^c (\$15,630,000 ^c 1978-2000)	0	State and local general funds.	State SWMB has the legal mandate to issue permits and may take legal action to ensure enforcement.

Policy 5

WHERE POSSIBLE, THE EXISTING PERMIT PROCESS SHOULD BE IMPROVED TO FACILITATE THE IMPLEMENTATION OF LARGE-SCALE ENERGY RECOVERY PROJECTS.

Action 5.1

Incorporate methods into existing permit process for large-scale energy recovery facilities to make it more efficient and convenient.

Regulatory agencies should assist applicants for large-scale energy recovery facilities by the following means:

o Clarify existing regulations, including time limits for review and comments, and adopt new ones where necessary.

o Assign a staff member knowledgeable in solid waste management to assist applicant in early identification of permit requirements.

o Hold meetings prior to public hearing for discussion of project-related issues; to be initiated by any of the regulatory agencies or by project applicant.

All permitting agencies with responsibility for regulating energy recovery facilities.

County Solid Waste Management Agencies

County Solid Waste Management Agencies or other permitting agencies as appropriate; ABAG, as requested.

Ongoing

Enabling legislation

\$5,500^a

(\$66,300^a 1978-2000)

\$ 5,500^a

(\$66,300^a 1978-2000)

County general funds; fees and surcharges; regulatory agencies' operating funds.

One general agreement to cover all aspects of the approved permit coordination system will be signed by participating agencies. It will specify implementation and enforcement mechanisms where appropriate. ABAG advocacy through Executive Board.

^a Public cost.

^b Private cost.

^c Public and private costs.

Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.

ENVIRONMENTAL IMPACT	INSTITUTIONAL/FINANCIAL IMPACT	ECONOMIC IMPACT	SOCIAL IMPACT
<u>Physical Resources</u> o Direct Impacts on landfill management practices due to compliance with State standards. <u>Energy</u> o No Impact. All other environmental impacts same as Action 4.1.	<u>Financial</u> o Direct Cost - Public: (All costs administrative and regulatory-funds committed) SSWMB - 1978 \$48,000 (Issue permits) 1978-2000 \$80,000/year (enforce permits) <u>Counties and Cities -</u> 1978 \$40,000 (Issue permits) 1978-2000 \$450,000/year (enforce permits) o Fiscal Effects on Local Governments - Cities and counties may impose permit fees. <u>Institutional</u> o SSWMB may delegate the authority of permit issuance to local enforcement agencies. o Permit requirements may be viewed negatively by some landfill site operators. o Permit requirements may be viewed positively by groups concerned with effects of solid waste management practices on environment.	<u>Direct Cost-Private</u> o Impact on all operators of private landfill sites in Region: 1978 \$40,000 (obtain permits) 1978-1979 \$450,000/year (make necessary improvements) <u>Production of Goods and Services</u> o Employment - permanent increase in employment due to issuance and enforcement of permits. <u>Income and Investment</u> o Private Investment may be needed to meet permit requirements. o May temporarily decrease profits of site operators due to capital investments. <u>Consumer Expenditures</u> o Costs for compliance with permit requirements may be passed on to consumers.	<u>Health and Safety</u> o Compliance with permit requirements would reduce health and safety hazards associated with solid waste. All other social impacts same as Action 4.1.
<u>Air Quality</u> o No Impact. <u>Water Quality</u> o No Impact. <u>Physical Resources</u> o Direct Impacts on solid waste management associated with greater efficiency and less time involved in developing new and expanded facilities. <u>Energy</u> o No Impact. <u>Amenities</u> o No Impact.	<u>Financial</u> o Direct Cost-Public: (Administrative and regulatory costs) Regional, State, Federal Agencies (7) 1978 - 2000 Total for Region \$46,300 <u>Counties</u> 1978 - 2000 Total for Region \$20,000 <u>Institutional</u> o Requires moderate cooperation among regulatory agencies and possible alteration of internal permit procedures. o Indirect impacts on solid waste management companies that would apply for permits-high acceptability. o Direct impact on permit procedures of county due to limited alterations. o Direct impacts due to allocation of county staff for assisting applicants in permit process. o Acceptable to private developers of new or expanded solid waste facilities and to involved public agencies.	<u>Direct Cost-Private</u> o Probable cost savings to private developer of solid waste facilities due to more efficient processing of permits. <u>Production of Goods and Services</u> o No Impact. <u>Income and Investment</u> o Indirect Impact on companies that must make capital investments for solid waste facilities due to increased efficiency of permit process and less time required. <u>Consumer expenditures</u> o No Impact.	<u>Housing Supply</u> o No Impact. <u>Physical Mobility</u> o No Impact. <u>Health and Safety</u> o No Impact. <u>Sense of Community</u> o No Impact. <u>Equity</u> o No Impact. <u>Urban Patterns</u> o No Impact.

SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 5.2 Collect and make available information on existing permit procedures and on other permit coordination efforts.	ABAG will compile information including application forms from each regulatory and commenting agency and distribute to the County Solid Waste Management Agencies; ABAG will maintain contact with other agencies (OPR, Resources Agency, ABAG-OPR Industrial Siting, AB-884, local governments) developing permit streamlining procedures and advocate appropriate legislative changes.	ABAG	Ongoing	Joint Powers Agreement (JPA) of ABAG; SB 424 (1977)	\$ 3,500 ^a (\$39,800 ^a 1978-2000)	\$ 3,500 ^a (\$39,800 1978-2000)	ABAG dues.	One general agreement to cover all aspects of the approved permit coordination system will be signed by participating agencies. It will specify implementation and enforcement mechanisms where appropriate. ABAG advocacy through Executive Board.
Policy 6 FEDERAL, STATE AND LOCAL PUBLIC EDUCATION PROGRAMS ARE ESSENTIAL TO PROMOTE AWARENESS OF THE FEASIBILITY AND NEED FOR WASTE REDUCTION.								
Action 6.1 Federal and State governments should make funds available to support education programs for promoting waste reduction.	Federal and State governments should fund education programs aimed at: o primary and secondary schools, o households, o stores and offices, and o manufacturing plants.	State and Federal governments.	Continuing	Federal and State Constitutions.	\$ 2,500 ^a (\$29,000 ^a 1978-2000)	\$ 2,500 ^a (\$29,000 ^a 1978-2000)	State and Federal funds. SB650 (1977).	After plan approval, EPA, SSWMB, cities and counties will adopt recommendations and will advocate State and Federal funding of education programs.
Action 6.2 Provide public information packets and multi-media programs on waste reduction. Introduce classes on waste reduction.	Describe and illustrate ways to reduce use and increase reuse of materials. SSWMB and ABAG would apply for available State and Federal funds to prepare and distribute throughout the region informational materials--brochures, filmstrips, etc. on ways that individuals can reduce waste and reuse materials in their homes, schools, work and leisure places. Local school districts introduce school classes on waste reduction with assistance provided by SSWMB, ABAG, and local governments.	Regional and local agencies, including school districts, as delegated by SSWMB.	Continuing	RCRA	\$202,000 ^a (\$2,352,000 ^a 1978-2000)	\$ 202,000 ^a (\$2,352,000 ^a 1978-2000)	State General Fund. SB 650 (1977)	Plan adoption ensures ABAG implementation

^aPublic cost.^bPrivate cost.^cPublic and private costs.

Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> o No impact.	<u>Financial</u> o Direct Cost-Public (Administrative costs-staff time to monitor) ABAG 1978 - 2000 Total \$39,800 (\$3,500/yr.)	<u>Direct Cost-Private</u> o No impact.	Same as Action 5.1
<u>Water Quality</u> o No impact.		<u>Production of Goods and Services</u> o No impact.	
<u>Physical Resources</u> o No impact.		<u>Income and Investment</u> o No impact.	
<u>Energy</u> o No impact.	<u>Institutional</u> o Possible impact on overall permit procedure if integration of solid waste coordination and systems for other development activities occurs.	<u>Consumer Expenditures</u> o No impact.	
<u>Amenities</u> o No impact.	o May result in significant institutional changes.		

<u>Air Quality</u> o Indirect impact resulting from shift in production practices and transportation patterns.	<u>Financial</u> o Direct costs-public: (Administrative costs) ABAG- 1978-2000 Total r= 6-3/8% \$14,573 r= 10% \$10,964 (\$1250/year) SSWMB- 1978-2000 Total r= 6-3/8% \$14,573 r= 10% \$10,964 (\$1250/year)	<u>Direct Costs-Private</u> o Indirect impact.	<u>Housing Supply</u> o No impact.
<u>Water Quality</u> o Indirect impact resulting from shift in production practices and transportation patterns.		<u>Production of Goods and Services</u> o Employment- Possible benefit due to creation of jobs in developing and conducting the education programs.	<u>Physical Mobility</u> o No impact.
<u>Physical Resources</u> o Solid Waste - Increased public awareness of problems related to solid waste. Indirect long-term impact, including reduced demands on landfill capacity, reduced demands on virgin material.	o Federal and State governments would have to pay the direct costs of funding the education programs.	o Potential significant long term benefit on types of goods produced; Increased public awareness of the ill effects of the "throwaway" ethic; shift in production and marketing practices to encourage production of more durable goods, limit production of excess packaging and throwaway items, and change marketing emphasis.	<u>Health and Safety</u> o No impact.
<u>Amenities</u> o No impact.	o Federal and State government agencies would have to bear costs of administering the funds.	<u>Income and Investment</u> o Indirect impact.	<u>Sense of Community</u> o No impact.
<u>Energy</u> o Indirect impact resulting from shift in production practices and transportation patterns.	<u>Institutional</u> o High degree of public acceptance-school children, businesses and offices and manufacturing industries.	<u>Consumer Expenditures</u> o Indirect impact.	<u>Equity</u> o No impact.
	o Should beneficially affect public acceptance of future waste reduction programs.		<u>Urban Patterns</u> o No impact.

<u>Physical Resources</u> o Solid Waste - Short-term - would give students a greater understanding of how disposal and creation of wastes affect the environment.	<u>Financial</u> 1978 Total r= 6 3/8% \$ 5452 r= 10% 5273 ABAG School Districts 1978-2000 Total For Region r= 6-3/8% \$ 2,332,000 r= 10% \$ 1,754,000 (\$200,000/year for Region)	<u>Direct Costs-Private</u> o Indirect impact.	Same as Action 6.1.
o Medium-term - Information and experiences would filter from schools to homes.		<u>Production of Goods and Services</u> o Indirect impact.	
1. Could result in reduced use of highly packaged goods, throwaway items, and non-recyclables.	<u>Institutional</u> o Indirect impact on public acceptance of waste reduction and resource recovery programs due to increased awareness.	<u>Income and Investments</u> o Indirect impact.	
2. Participation in resource recovery programs.	o Environmental groups including recycling centers would view favorably; positive effect on public acceptance of future programs.	<u>Consumer Expenditures</u> o Long-term Indirect Impact could be reduced expenditures on throwaway items, products in non-recyclable containers.	
All other environmental impacts same as action 6.1		o Preferences for more durable goods and products with less packaging could result.	

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Policy 7

FEDERAL, STATE AND LOCAL GOVERNMENTS SHOULD ADOPT LEGISLATIVE AND ADMINISTRATIVE CHANGES WHICH PROMOTE WASTE REDUCTION, WHERE APPROPRIATE.

Action 7.1

Change manufacturing standards and regulations, where appropriate.

Changes in standards and regulations of manufacturing may be needed to:

- o reduce excess packaging,
- o prohibit manufacture of certain products, such as disposable containers,
- o standardize containers,
- o limit number of container sizes,
- o increase service life of products, e.g., appliances, and
- o design criteria (such as modular components) to make repair more attractive than replacement.

Changes in standards and regulations of manufacturing may also be needed to encourage the design, manufacture, and reuse of packaging which:

- o promote energy conservation
- o promote resource conservation
- o provide incentives to manufacturers for using recycled or secondary materials.

U.S. Congress and Federal Administration; State Legislature and administration.

Continuing

Federal and State constitutions.

o

o

State and Federal funds.

After plan approval, EPA, SSWMB, cities, and counties will adopt recommendations and will advocate changes.

Action 7.2

Advocate Federal and State legislation to promote waste reduction, where appropriate.

Monitor proposed legislation; prepare analyses and advocate positions; develop proposals and seek legislative sponsors.

ABAG

Continuing

JPA of ABAG.

\$900^a
(\$10,000
1979-2000)\$ 900^a
(\$10,000
1979-2000)

State and Federal funds.

Plan adoption ensures ABAG implementation.

Policy 8

FACILITATE REGIONWIDE COOPERATION IN DEVELOPING STABLE, ADEQUATE MARKETS FOR SECONDARY MATERIALS.

Action 8.1

Prepare and update listing of buyers.

Prepare listing of buyers of secondary materials which would include estimates, quantities, quality, and specifications on materials handled.

SSWMB in cooperation with ABAG.

Continuing

SB 5;
SB 424;
JPA of ABAG\$ 500^a
(\$58,000^a
1978-2000)\$ 500^a
(\$58,000^a
1978-2000)

State and Federal funds.

Plan adoption ensures ABAG implementation.

■ Public cost.

■ Private cost.

■ Public and private costs.

Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> o Indirect impact resulting from shift in production practices and transportation patterns. <u>Water Quality</u> o Indirect impact resulting from shift in production practices and transportation patterns. <u>Physical Resources</u> o Solid Wastes - Probable impact - Implementation of these changes by industry would reduce quantities of wastes produced in manufacturing practices; reduce generation of packaging materials; make recovery of certain products more feasible; and permit increased use of secondary materials, and products containing secondary materials, in manufacturing processes. <u>Energy</u> o Indirect impact resulting from shift in production practices and transportation patterns.	<u>Financial</u> o Direct Costs-Public: The Federal and State governments would bear administrative costs involved in changing standards and regulations; part of regular function. <u>Institutional</u> o Public acceptance -Changes in certain standards and regulations may be opposed by affected industries. -Environmental groups and organizations (both private and public) involved in resource recovery would view these changes with favour. o Political and organizational feasibility - -Officials with significant urban industrial constituencies may be unwilling to advocate these changes.	<u>Direct Costs - Private</u> o For compliance with new standards, industries may bear costs of: -Changes in packaging design -Changes in operational practices, and -Changes in product design. These costs may be offset to some extent by reduced waste disposal costs or may be passed on to the consumer. <u>Production of Goods and Services</u> o Possible impact on design and packaging of goods. <u>Income and Investment</u> o Possible impact on capital investments-some industries may require new equipment. impact would be industry-specific. <u>Consumer Expenditures</u> o Probable increase in cost of some products.	<u>Housing Supply</u> o No impact. <u>Physical Mobility</u> o No impact. <u>Health and Safety</u> o No impact. <u>Sense of Community</u> o No impact. <u>Equity</u> o No impact. <u>Urban Patterns</u> o No impact.
Impacts same as Action 7.1.	Same as Action 7.1.	Same as Action 7.1.	Same as Action 7.1.

<u>Air Quality</u> o No impact. <u>Water Quality</u> o No impact. <u>Physical Resources</u> o Solid Waste- Possible increased viability of resource recovery activities if market for secondary goods is established or expanded. <u>Energy</u> o No impact. <u>Amenities</u> o No impact.	<u>Financial</u> o Direct Cost-Public: (Administrative Costs) ABAS- 1978 Total r= 6-3/8% \$58,287 r= 10% \$43,851 <u>Institutional</u> o Increased acceptability of recycling with potential buyers. o Direct impact on groups involved in recycling due to increased awareness and participation by public.	<u>Direct Cost-Private</u> o No impact. <u>Production of Goods and Services</u> o Possible increase in flow of goods from recycling centers or other resource recovery projects to secondary materials buyers. Possible impact on production of goods containing secondary materials. <u>Income and Investments</u> o No impact. <u>Consumer Expenditures</u> o No impact.	Same as Action 7.1
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SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 8.2 Provide forum for coordination.	Organize meetings for representatives of recycling centers, local governments, citizen groups, secondary markets, and private enterprise. If appropriate, assist in establishing a regional information center on recycling of residential, commercial, and industrial wastes.	SSWMB in cooperation with ABAG	Ongoing.	SB 5; SB 424 (1977); JPA of ABAG.	\$1,600 ^a (\$19,000 ^a 1978-2000)	\$1,600 ^a (\$19,000 ^a 1978-2000)	State and Federal funds.	Plan adoption ensures ABAG implementation.
Policy 9 FEDERAL, STATE AND LOCAL GOVERNMENTS SHOULD ADOPT LEGISLATIVE AND ADMINISTRATIVE CHANGES TO SUPPORT STABLE, ADEQUATE MARKETS FOR SECONDARY MATERIALS AND PRODUCTS MADE FROM THEM.								
Action 9.1 Change existing Federal and State laws and regulations to support stable, adequate markets for secondary materials and products made from them.	Change existing Federal and State laws and regulations in the following areas: <ul style="list-style-type: none">o Change tax laws to eliminate favored status of virgin materials.o Introduce Federal surtaxes or disposal charges on prices of virgin materials.o Reform Interstate Commerce Commission's and California Public Utilities Commission's rate structures to eliminate rate differentials between primary and secondary materials.o Require certain percentage of secondary material to be contained in specific products, where feasible, and set maximum permissible	U.S. Congress and Federal administration; State Legislature and administration. quantities of virgin materials in specific products.	As soon as possible.	Federal and State Constitutions.	0	0	Federal and State funds.	After plan approval, EPA, SSWMB, cities, and counties will adopt recommendations and will advocate changes.
Action 9.2 Adopt preferential purchasing policies for secondary materials, where appropriate.	Policies would favour purchase of products containing secondary materials.	ABAG; regional agencies; local governments.	As soon as possible.	Local governments enabling legislation; AB 1504 (1977)	\$16,000 ^a (\$190,000 ^a 1978)	\$16,000 ^a (\$190,000 ^a 1978)	None needed.	Plan approval by implementing agencies will ensure adoption of policies.

■ Public cost.

■ Private cost.

■ Public and private costs.

Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> o No Impact.	<u>Financial</u> o Direct Cost-Public: (Administrative Costs)	<u>Direct Cost-Private</u> o No Impact.	Same as Action 7.1.
<u>Water Quality</u> o No Impact.	ABAG-	<u>Production of Goods and Services</u> o No Impact.	
<u>Physical Resources</u> o Could modify solid waste management practices in the long-term; extent of this impact is not quantifiably predictable.	1978-2000 Total r= 6-3/8% \$ 18,654 r= 10% \$ 14,034 ((\$1600/year)	<u>Income and Investments</u> o No Impact.	
<u>Energy</u> o No Impact.	<u>Institutional</u> o Would directly impact groups and industries involved in resource recovery and in disposal, transportation or collection of municipal solid wastes. Probably be viewed favorably by the various groups and industry. It is a necessary step in modifying solid waste management practices.	<u>Consumer Expenditures</u> o No Impact.	
<u>Amenities</u> o No Impact.			

<u>Air Quality, Water Quality, Energy</u> o Indirect impact resulting from shift in production practices and transportation patterns. <u>Physical Resources</u> o Direct beneficial impact on solid waste. o Possible expansion of resource recovery programs. o Possible long-term reduction of demands on timber and mineral resources. <u>Amenities</u> o No Impact.	<u>Financial</u> o Direct Costs-Public: Federal and State government agencies would have administrative costs involved in changing laws and regulations; part of normal operations. <u>Institutional</u> o Public Acceptance-viewed favorably by environmental groups, secondary materials industry, and most persons involved in resource recovery. o Industries, particularly the extractive industries would likely be opposed to the change in competitive position of their goods. o Implementation-due to industrial opposition, these recommended changes may be difficult to implement.	<u>Direct Cost-Private</u> o Possible costs of shifting from use of virgin to use of secondary materials. <u>Production of Goods and Services</u> o The change in costs of secondary materials could shift production practices from use of primary materials to use of secondary. <u>Income and Investments</u> o Possible investment in equipment to shift production practices. <u>Consumer Expenditures</u> o probable impact on prices. Could reduce costs of transporting secondary materials or products containing secondary materials.	Same as Action 7.1.
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<u>Air Quality</u> <ul style="list-style-type: none">o Indirect impact resulting from shift in production practices and transportation patterns.	<u>Financial</u> <ul style="list-style-type: none">o Direct Costs-Public: (Administrative Costs)	<u>Direct Costs-Private</u> <ul style="list-style-type: none">o Indirect impact.	Same as Action 7.1.						
<u>Water Quality</u> <ul style="list-style-type: none">o Indirect impact resulting from shift in production practices and transportation patterns.	<u>Participating Agencies (89)</u> <table><tr><td>1978</td><td><u>Total For Region</u></td></tr><tr><td>r= 6-3/8%</td><td>\$ 189,938</td></tr><tr><td>r= 10%</td><td>\$ 183,679</td></tr></table>	1978		<u>Total For Region</u>	r= 6-3/8%	\$ 189,938	r= 10%	\$ 183,679	<u>Production of Goods and Services</u> <ul style="list-style-type: none">o Indirect impact.
1978	<u>Total For Region</u>								
r= 6-3/8%	\$ 189,938								
r= 10%	\$ 183,679								
<u>Physical Resources</u> <ul style="list-style-type: none">o Solid Waste - Direct effect on secondary materials markets; would indirectly affect recycling and resource recovery programs.	<u>Institutional</u> <ul style="list-style-type: none">o Highly acceptable to recyclers and producers of secondary goods.o Could meet with opposition by producers of goods using virgin materials.	<u>Income and Investments</u> <ul style="list-style-type: none">o Indirect impact.							
<u>Energy</u> <ul style="list-style-type: none">o Indirect impact resulting from shift in production practices and transportation patterns.		<u>Consumer Expenditures</u> <ul style="list-style-type: none">o Indirect impact.							
<u>Amenities</u> <ul style="list-style-type: none">o No impact.									

SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 10								
ALL LEVELS OF GOVERNMENTS SHOULD ENCOURAGE DEVELOPMENT OF SOURCE SEPARATION PROGRAMS, WHERE APPROPRIATE.								
Action 10.1 Provide information and assistance on source separation.	Facilitate efforts of local governments, citizen groups, and collection companies by offering technical advice, contacting secondary material buyers, and by providing a forum for coordination of these efforts. Provide information regarding available sources of funding for source separation programs.	ABAG in cooperation with SSWMB.	Ongoing.	JPA of ABAG; SB 5	\$7,800 ^a (\$91,000 ^a 1978-2000)	\$7,800 ^a (\$91,000 ^a 1978-2000)	Dues, State and Federal grants. State General Funds.	Plan approval will ensure implementation.
Action 10.2 Fund projects on source separation at the local, State and Federal level.	State and Federal legislatures should provide funding through grants or low-interest loans for source separation and recycling projects, including oil recovery.	State and Federal Legislature; SSWMB as the administering agency.	Ongoing.	SB650 (1977), SB68 (1977).	\$254,000 ^a (\$3,000,000 ^a 1978-1982)	\$254,000 ^a (\$3,000,000 ^a 1978-1982)	State and Federal funds. SB650 (1977), CPCFCA.	ABAG, SSWMB, and local governments will advocate funding for demonstration projects.
Action 10.3 Establish office paper recycling program.	Data and experience of the public agency programs would be used to expand recycling into the private sector.	ABAG & other regional agencies; local governments; private sector.	May 1978 as possible.	JPA of ABAG; agencies' enabling legislation.	\$ 3,900 ^a (\$45,000 ^a 1978)	\$ 3,900 ^a (\$45,000 ^a 1978)	Sales of used paper.	ABAG will start a program.
Action 10.4 Adopt resolutions supporting existing community source separation and recycling programs.	These resolutions would: acknowledge on-going efforts (such as voluntary recycling centers, school use of industrial scrap materials (Bay Area Creative Recycle), etc), encourage involvement in these programs and establish policies supporting new programs.	City Councils; Boards of Supervisors; School district boards; County Solid Waste Management Authorities.	As soon as possible.	Local governments enabling legislation.	\$ 900 ^a (\$10,000 ^a 1978)	\$ 900 ^a (\$10,000 ^a 1978)	None needed.	ABAG will advocate. ^a Public cost. ^b Private cost. ^c Public and private costs.

ENVIRONMENTAL IMPACTS

INSTITUTIONAL/FINANCIAL IMPACTS

ECONOMIC IMPACTS

SOCIAL IMPACTS

Air Quality, Water Quality, Energy

- o Indirect impact resulting from shift in production practices and transportation patterns.

Physical Resources

- o Possible indirect benefits- Communities may develop or increase resource recovery activities if provided with information.

Amenities

- o No impact.

Financial

- o Direct Cost-Public: (Administrative Costs)

ABAG- 1978-2000	Total
r= 6-3/8%	\$ 90,938
r= 10%	\$ 68,418
	(\$7800/year)

Direct Cost-Private

- o Indirect impact.

Production of Goods and Services

- o Indirect impact.

Income and Investments

- o Indirect impact.

Consumer Expenditures

- o Indirect impact.

Housing Supply

- o No impact.

Physical Mobility

- o No impact.

Health and Safety

- o No impact.

Sense of Community

- o Possible indirect impact on sense of community due to common purpose.

Equity

- o No impact.

Urban Patterns

- o No impact.

Physical Resources

- o Significant impacts in communities with the demonstration projects:
 - 1) reduced waste generation,
 - and 2) increased recycling.
- o Possible indirect long-term impacts on physical resources. Demands on mineral and timber resources could be reduced.

All other environmental impacts are same as Action 10.1

Financial

- o Direct Costs-Public: (Administrative Costs)

Funding Agencies

(Federal and State Government would pay direct costs of funding the programs.)

1978-1979	Total
r= 6-3/8%	\$2,953,648
r= 10%	\$2,811,574
	(\$1,620,000 per year for Region)

ABAG- 1978-1983	Total
r= 6-3/8%	\$5212
r= 10%	\$4738

Institutional

- o Public Acceptance - Environmental groups and companies or individuals involved in resource recovery should view this action positively.

Direct Costs-Private

- o Indirect impact.

Production of Goods and Services

- o Employment- Possible increase in jobs in communities with demonstration projects.

Income and Investments

- o New programs may require communities to invest in some equipment.

- o Federal and State support of these programs may encourage private investment in resource recovery operation.

Consumer Expenditures

- o Indirect impact.

Housing Supply

- o No impact.

Physical Mobility

- o No impact.

Health and Safety

- o No impact.

Sense of Community

- o Possible impact on sense of community associated with common purpose.

Equity

- o Changes in Lifestyle- Community involvement in resource recovery requires some minor changes in daily lifestyle of its residents.

Urban Patterns

- o No impact.

Physical Resources

- o Minor impact by reduction of total amount of waste that requires disposal.
- o Potential long-term impact of reducing demands on timber resources.

All other environmental impacts are same as Action 10.1

Financial

- o Direct Cost-Public: (Administrative Costs)

Participating Agencies (80)-

1978	Total
r= 6-3/8%	\$ 44,935
r= 10%	\$ 43,455

Institutional

- o Public acceptability - Possible indirect impact if program is perceived as a nuisance.

- o Increased public awareness of recycling; future programs more acceptable.

Direct Cost-Private

- o No impact.

Production of Goods and Services

- o Could alter production practices to favor greater use of secondary fibers.

Income and Investments

- o No impact.

Consumer Expenditures

- o May slightly reduce demand for new paper in the long term.

Housing Supply

- o No impact.

Physical Mobility

- o No impact.

Health and Safety

- o No impact.

Sense of Community

- o No impact.

Equity

- o No impact.

Urban Patterns

- o No impact.

Physical Resources

- o More immediate, direct benefits may accrue to current recycling efforts in form of increased participation, increased publicity, and increased acceptance.

All other environmental impacts are same as Action 10.1.

Financial

- o Direct Costs-Public: (Administrative Costs)

Local Governments (50) -

1978	Total
r= 6-3/8%	\$ 10,247
r= 10%	\$ 9,909
	(about \$200 per agency)

Institutional

- o Public Acceptance - Positive effect on public acceptance of concept of recycling.

Same as Action 10.1.

Same as Action 10.1.

SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 11 ADEQUATE PLANNING FOR HAZARDOUS WASTE MANAGEMENT REQUIRES ACCURATE DATA.								
Action 11.1 Conduct surveys of hazardous industrial wastes.	Survey the amount of hazardous industrial waste currently being generated, what these materials are and how they are currently being disposed of.	State Dept. of Health with assistance from counties, SSWMB and ABAG.	1979	RCRA Sec. 3002(6); State Hazardous Waste Control Act; SB 424 (1977); SB 5.	\$ 6,400 ^a (\$75,000 ^a 1978-79) \$1,400 ^b (\$16,000 ^b 1978-79)	\$ 6,400 ^a (\$75,000 ^a 1978-79) \$1,400 ^b (\$16,000 ^b 1978-79)	RCRA; SSWMB; BASWMP Phase II; with local matching funds (incl. in-kind services)	Agreements to be negotiated between ABAG, State agencies and the county solid waste management agencies.
Action 11.2 Conduct surveys of hazardous hospital wastes.	Survey the amount of infectious or pathological waste currently being generated, what these materials are, and how they are currently being disposed of.	State Dept. of Health with assistance from counties, SSWMB and ABAG.	By April 1980	Proposed State Hazardous Waste Control Act Amendments; SB 424 (1977); RCRA; SB 5.	\$ 400 ^a (\$4,900 ^a 1979-80) \$100 ^b (\$900 ^b 1979-80)	\$ 400 ^a (\$4,900 ^a 1979-80) \$100 ^b (\$900 ^b 1979-80)	RCRA; SSWMB; BASWMP Phase II; with local matching funds (incl. in-kind services)	Agreements to be negotiated between ABAG, State agencies and county solid waste management agencies.

^a Public cost.

^b Private cost.

^c Public and private costs.

Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.

ENVIRONMENTAL IMPACTS

INSTITUTIONAL/FINANCIAL IMPACTS

ECONOMIC IMPACTS

SOCIAL IMPACTS

Air Quality
o No Impact.

Water Quality
o No Impact.

Physical Resources
o Possible Indirect impacts due to ability to determine need for future Class 1 sites.

o Indirect Impact-possible decrease in illegal dumping of hazardous wastes.

Energy
o No Impact.

Amenities
o No Impact.

Financial

o Direct Cost-Public:
(Administrative and regulatory costs)

State Dept. of Health-

1978-1979	Total
r= 6-3/8%	\$ 16,013
r= 10%	\$ 15,238

Counties (9)

1978-1979	Total
r= 6-3/8%	\$ 59,456
r= 10%	\$ 56,579

Institutional

o Direct Impact on industrial generators of hazardous wastes due to perceived intrusion into industry practices.

o Minor temporary impact on County staff due to staff commitment to conduct surveys.

Direct Cost-Private

o Minor temporary interruption in normal operations to supply information to County surveyors.

Hazardous Waste Generators-

1978-1979	Total
r= 6-3/8%	\$ 16,013
r= 10%	\$ 15,238

Production of Goods and Services

o No Impacts.

Income and Investments

o No Impact.

Consumer Expenditures

o No Impact.

Housing Supply
o No Impact.

Physical Mobility
o No Impact.

Health and Safety
o Possibility of indirectly leading to less contact with dangerous materials.

Sense of Community
o No Impact.

Equity
o No impact.

Urban Patterns
o No impact.

Physical Resources

o Indirect minor impacts due to greater preprocessing for disposal to sewers and therefore reduce use of landfill sites.

All other environmental impacts same as Action 11.1

Financial

o Direct Cost-Public:
(Administrative Costs)

State Dept. of Health

1979-1980	Total
r= 6-3/8%	\$ 2006
r= 10%	\$ 1863

Counties-

1979-1980	Total
r= 6-3/8%	\$ 2856
r= 10%	\$ 2629

Institutional

o Direct Impact on hospital administrators due to perceived inconvenience of supplying information.

o Impact on legal capability since requires amendment to State Hazardous Waste Control Act (In process).

o Direct temporary impact on allocation of staff due to staff commitment to conduct surveys.

Direct Cost-Private

o Minor temporary interruption in normal operations to supply information to County surveyors.

Hospital Administrators-

1979-1980	Total
r= 6-3/8%	\$ 857
r= 10%	\$ 789

All other economic impacts same as Action 11.1.

Same as Action 11.1

SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 11.3 Determine whether there is a need for additional Class I site capacity.	Determine whether or not additional Class I sites are needed in the Bay Area. Determine waste quantities that can be handled at each existing Class I site.	State Health Dept. in conjunction with h RWQCB, SSWMB, ABAG and the counties.	Ongoing.	AB 1593 (1977); AB 598 (1972); SB 424 (1977); SB 5; RCRA.	\$ 1,800 ^a (\$21,000 ^a 1979)	\$ 1,800 ^a (\$21,000 ^a 1979)	SWMB Grant.	Agreements to be negotiated between ABAG, State agencies and county solid waste management agencies.

Policy 12

HAZARDOUS INDUSTRIAL WASTE REDUCTION, SOURCE SEPARATION, AND RECOVERY SHOULD BE PROMOTED IN THE INTEREST OF LIMITING LAND DISPOSAL.

Action 12.1

Encourage hazardous waste reduction.

Encourage industry to make changes in its processes to reduce the amount of hazardous waste generated.

State Dept. of Health with assistance from ABAG, SSWMB, RWQCB and county solid waste management agencies.

Ongoing. AB 1593 (1977);
SB 424 (1977);
SB 5;
RCRA\$13,000^a \$13,000^a
(\$152,000^a (\$152,000^a
1978-2000) 1978-2000)

RCRA; State funds; CPCFA. Agreement to be negotiated between ABAG, State agencies and county solid waste management agencies.

^a Public cost.^b Private cost.^c Public and private costs.

Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS												
<p>(Impacts are contingent on the determination that a site is needed. Also impacts are site specific).</p> <p><u>Air Quality</u></p> <ul style="list-style-type: none">o Indirect impact; solar evaporation ponds may have some odor. Extent of the odor depends on how well the site is operated. Burial activities may lead to increased dust. <p><u>Water Quality</u></p> <ul style="list-style-type: none">o Indirect impact if site is established to replace an existing site with water quality problems. <p><u>Physical Resources</u></p> <ul style="list-style-type: none">o There may be indirect impacts on flora and fauna, agricultural land, mineral extraction and timber lands. Effects could be minimized in the site selection process.o Indirect impacts due to shifts in the routes traveled by waste trucks, need for a new transfer station, and volumes of waste disposed of at existing Class I sites. <p><u>Energy</u></p> <ul style="list-style-type: none">o No impact. <p><u>Amenities</u></p> <ul style="list-style-type: none">o Reduction of the visual amenities of the chosen site.o Site preparation activities, traffic associated with disposal, and on-site operations would result in increased noise levels.	<p><u>Financial</u></p> <ul style="list-style-type: none">o Direct Cost-Public: (Administrative Costs) <p><u>ABAG-</u></p> <table><tr><td>1979</td><td>Total</td></tr><tr><td>r= 6-3/8%</td><td>\$ 4419</td></tr><tr><td>r= 10%</td><td>\$ 4132</td></tr></table> <p><u>Counties (9)</u></p> <table><tr><td>1979</td><td>Total For Region</td></tr><tr><td>r= 6-3/8%</td><td>\$16,567</td></tr><tr><td>r= 10%</td><td>\$15,493</td></tr></table> <ul style="list-style-type: none">o If financed publicly, site may be financed by local government bonds or increases in property taxes.o If the site is private, it would establish an additional industry to be taxed.o Probable revenue to the jurisdiction from development and construction fees. <p><u>Institutional</u></p> <ul style="list-style-type: none">o Unknown indirect impact on existing Class I site operators due to competition. Possible reaction of communities depending on the locations of site(s) which could lead to poor public acceptability.o ABAG and Counties may have difficulties in making this decision due to its sensitive nature.o County staff may be shifted from other duties to work on this study.	1979	Total	r= 6-3/8%	\$ 4419	r= 10%	\$ 4132	1979	Total For Region	r= 6-3/8%	\$16,567	r= 10%	\$15,493	<p><u>Direct Cost-Private</u></p> <ul style="list-style-type: none">o No Impact. <p><u>Production of Goods and Services</u></p> <ul style="list-style-type: none">o Indirect Impact on the number and location of industries that depend on Class I sites for disposal of their hazardous wastes.o Employment - Temporary construction employment and more permanent employment in operating the site could result. <p><u>Income and Investments</u></p> <ul style="list-style-type: none">o Property chosen for site could increase in value; surrounding property could decrease in value.o Indirect Impact on capital investments by requiring an investment in land and equipment for Class I sites by the owner or operator of the facility(s).o Possible Indirect Impact on the profits of existing competing Class I site owners and operators since revenue would be spread to include the new site(s). <p><u>Consumer Expenditures</u></p> <ul style="list-style-type: none">o Indirect Impact on disposal rates at Class I sites related to profits of site owners and operators.	<p><u>Health and Safety</u></p> <ul style="list-style-type: none">o The decision would help ensure disposal capacity of Group 1 (hazardous) wastes and therefore have an indirect, moderate, beneficial impact on public health. <p><u>Urban Patterns</u></p> <ul style="list-style-type: none">o Possible Indirect impact on land use by restricting use of site and adjacent areas. <p>All other social impacts same as Action 11.1.</p>
1979	Total														
r= 6-3/8%	\$ 4419														
r= 10%	\$ 4132														
1979	Total For Region														
r= 6-3/8%	\$16,567														
r= 10%	\$15,493														
<p><u>Air Quality</u></p> <ul style="list-style-type: none">o There would be an indirect impact on dust and odors due to reduced need for land disposal. <p><u>Water Quality</u></p> <ul style="list-style-type: none">o There may be an indirect impact on water quality due to reduced need for land disposal. <p><u>Physical Resources</u></p> <ul style="list-style-type: none">o Direct impact on solid waste by changing industrial practices, thereby reducing wastes.o Indirect impacts on solid waste by reducing quantity of hazardous wastes generated, by reducing volume required for storage, collection, and hauling, by prolonging life of existing Class I sites and reducing need for additional sites.o Possible indirect impact on raw materials due to reduced consumption. <p><u>Energy</u></p> <ul style="list-style-type: none">o Possible changes in the use of energy. Impact cannot be predicted. <p><u>Amenities</u></p> <ul style="list-style-type: none">o No impact.	<p><u>Financial</u></p> <ul style="list-style-type: none">o Direct Cost-Public: <p><u>ABAG-</u></p> <table><tr><td>1978-2000</td><td>Total</td></tr><tr><td>r= 6-3/8%</td><td>\$ 29,147</td></tr><tr><td>r= 10%</td><td>\$ 21,929</td></tr></table> <p>(staff time - \$2,500/year)</p> <p><u>State Department of Health-</u></p> <table><tr><td>1978-2000</td><td>Total</td></tr><tr><td>r= 6-3/8%</td><td>\$ 122,416</td></tr><tr><td>r= 10%</td><td>\$ 92,101</td></tr></table> <p>(staff time - \$10,000/year)</p> <p><u>Institutional</u></p> <ul style="list-style-type: none">o May be unpopular with generators due to perceived costs and reluctance to change; popular with environmental groups.o Legal capability of the State Dept. of Health to aggressively encourage waste reduction is uncertain.o Direct impact on State Health Dept. staff due to staff commitment to help industry.	1978-2000	Total	r= 6-3/8%	\$ 29,147	r= 10%	\$ 21,929	1978-2000	Total	r= 6-3/8%	\$ 122,416	r= 10%	\$ 92,101	<p><u>Direct Cost-Private</u></p> <ul style="list-style-type: none">o Indirect short-term cost of modifying processes and plants; long-term reduction of disposal costs. <p><u>Production of Goods and Services</u></p> <ul style="list-style-type: none">o Short-term indirect impact as process changes are made; long-term impact as savings are realized. <p><u>Income and Investment</u></p> <ul style="list-style-type: none">o Possible minor to significant investments by industry in new equipment depending on commitment to waste reduction and type of process involved.o Possible short-term reduction of profits due to investments and long-term increases in profit due to reduction of disposal fees for industrial generators of hazardous wastes. <p><u>Consumer Expenditures</u></p> <ul style="list-style-type: none">o Possible indirect benefits in cost savings for consumer.	<p><u>Housing Supply</u></p> <ul style="list-style-type: none">o No Impact. <p><u>Physical Mobility</u></p> <ul style="list-style-type: none">o No Impact. <p><u>Health and Safety</u></p> <ul style="list-style-type: none">o Indirect impact on public health by reducing the amount of hazardous wastes to be managed. <p><u>Sense of Community</u></p> <ul style="list-style-type: none">o No Impact. <p><u>Equity</u></p> <ul style="list-style-type: none">o No impact. <p><u>Urban Patterns</u></p> <ul style="list-style-type: none">o No Impact.
1978-2000	Total														
r= 6-3/8%	\$ 29,147														
r= 10%	\$ 21,929														
1978-2000	Total														
r= 6-3/8%	\$ 122,416														
r= 10%	\$ 92,101														

SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 12.2 Encourage hazardous waste source separation.	Encourage industry to avoid mixing wastes to facilitate recycling.	State Health Dept. with assistance from ABAG, SSWMB, RWOCB and county solid waste management agencies.	Ongoing.	AB 1593 (1977); SB 424 (1977); SB 5; RCRA	\$13,000 ^a (\$152,000 ^a 1978-2000)	\$13,000 ^a (\$152,000 ^a 1978-2000)	RCRA; State funds; SB 650.	Agreement to be negotiated between ABAG, State agencies and county solid waste management agencies.
Action 12.3 Encourage hazardous waste resource recovery.	Provide incentives to industry for resource recovery, such as:	Congress, CPA State Legislature:		U.S. Constitution, State Constitution and:	\$18,000 ^a \$181,000 ^a 1978-2000)	\$18,000 ^a (\$181,000 ^a 1978-2000)		Agreements to be negotiated between ABAG, State Health Dept., the Solid Waste Management Board, and county solid waste management agencies.
	o Low interest loans for new equipment	State Health Dept.; SWMB.	Ongoing	Legal authority for implementing agencies			RCRA and CPCFA funds.	
	o A Statewide waste exchange and marketing system.	State Health Dept.	Ongoing.	State Health Dept.; RCRA and State Hazardous Waste Control Act			RCRA; State funds. CPCFA.	
	o Information dissemination through business associations	ABAG; State Health Dept.	Ongoing				State funds.	
	o Guidance to industry on reusing waste.	State Health Dept.	Ongoing	SSWMB: RCRA and SB 5			RCRA; State funds.	
	o Charges to dispose of materials at Class I sites with exemptions for installations with recovery equipment.	State Health Dept., county solid waste management agencies.	Ongoing	ABAG: HUD designation as regional planning agency, OMB Circular A-95 designation, Section 208 of FWPCA; SB 424 (1977); RCRA			RCRA; State funds.	

■ Public cost.

■ Private cost.

■ Public and private costs.

Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.

ENVIRONMENTAL IMPACTS

INSTITUTIONAL/FINANCIAL IMPACTS

ECONOMIC IMPACTS

SOCIAL IMPACTS

Physical Resources

- o Direct Impact on solid waste by changing industrial operating practices thereby encouraging separation of wastes.
- o Indirect impacts on solid waste may alter the way hazardous wastes are collected, increase the amount of recovered materials available, increase the life of existing Class 1 sites, reduce the need for more Class 1 sites.
- o Possible reduction in consumption of raw materials.

All other environmental impacts same as Action 12.1.

Financial

o Direct Cost-Public:

ABAG-

1978-2000	Total
r= 6-3/8%	\$ 29,147
r= 10%	\$ 21,929
(staff time - \$2,500/year)	

State Department of Health-

1978-2000	Total
r= 6-3/8%	\$ 122,416
r= 10%	\$ 92,101
(staff time - \$10,000/year)	

Institutional

o Same as Action 12.1.

Production of Goods and Services

- o Indirect impact on production since it may result in greater use of recycled materials.

- o Employment- Indirect impact on employment due to slight increase in time spent in separating materials.

Income and Investment

- o Indirect impacts on capital since may result in small investment to purchase facilities to collect and store recyclable wastes separately.

- o Possible short-term reduction of profits due to necessary investments; long-term increases from decreased costs for disposal and for raw materials.

All other economic impacts same as Action 12.1.

Same as Action 12.1.

Physical Resources

- o Direct Impact on solid waste by changing industrial operating practices thereby encouraging resource recovery.
- o Indirect impacts on solid waste--since may alter the amount of waste going to landfills, may require additional source separation, may increase the life of existing Class 1 sites, may reduce the need for more Class 1 sites.
- o Possible reduction in consumption of raw materials.

All other environmental impacts same as Action 12.1.

Financialo Direct Cost-Public:
(Administrative and regulatory costs)ABAG-

1978-2000	Total
r= 6-3/8%	\$ 29,147
r= 10%	\$ 21,929
(staff time - \$2,500/year)	

State Department of Health

1978-2000	Total
r= 6-3/8%	\$ 122,416
r= 10%	\$ 92,101
(staff time - \$10,000/year)	

SSWMB

1978-2000	Total
r= 6-3/8%	\$ 58,293
r= 10%	43,858
(staff time - \$5,000/year)	

Institutional

- o Unpopular with generators due to perceived costs and reluctance to change; popular with environmentalists; any tax law changes could be controversial.

- o Possibly complex to implement. Measures may require the initiative of three implementing agencies.

- o Some incentives may require enabling legislation. (Especially any tax law changes.)

- o Direct impact on SHD, SSWMB, and ABAG staff due to commitment to help industry.

Direct Cost-Private

o Same as Action 12.1.

Production of Goods and Services

- o Indirect impact on production due to less use of virgin materials.

- o Employment- Indirect impacts on employment by slightly increasing jobs at resource recovery facilities and decreasing jobs in production of virgin materials- possible net job increase.

Income and Investments

- o Indirect impacts on capital since results in purchasing resource recovery facilities by industries that generate hazardous wastes.

- o Possible short-term reduction of profits due to investments; long-term increases from decreased costs for disposal and for raw materials.

Consumer Expenditures

- o Unknown Indirect Impact on cost related to indirect cost to industry.

- o Less virgin materials; more reclaimed materials (indirect).

Same as Action 12.1.

SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 12.4 Investigate the consolidation of hazardous wastes for processing.	Investigate the possibility of waste consolidation to facilitate waste processing and recovery.	State Health Dept. with assistance from ABAG, SCWMB, RWQCB, and county solid waste management agencies.	Ongoing.	RCRA; State Hazardous Waste Control Act; SB 424 (1977); SB 5.	\$ 3,000 ^a (\$30,000 ^a 1979)	\$ 3,000 ^a (\$30,000 ^a 1979)	RCRA; State funds.	Agreement to be negotiated between ABAG, State agencies, and county solid waste management agencies.
Policy 13 REGULATIONS SHOULD ENSURE SAFE AND PROPER HANDLING OF HAZARDOUS WASTES.								
Action 13.1 Enforce proper labeling requirements.	Require that containers used for storage, transport, or disposal of hazardous waste accurately identify their contents.	EPA; State Health Dept.	Ongoing.	RCRA Sec. 3002 (2); State Hazardous Waste Control Act; AB 1593 (1977).	NA	0	RCRA; State funds.	Required by existing Statute; EPA will enforce.
Action 13.2 Enforce adequate storage facilities requirements.	Require that containers used for on-site storage for transport and for disposal be made of proper materials and designed so as to minimize the hazards of leaking or breaking.	EPA; State Health Dept.	Ongoing.	RCRA Sec. 3002 (3); State Hazardous Waste Control Act; AB 1593 (1977).	NA	0	RCRA; State funds.	Required by existing Statute; EPA will enforce.
Action 13.3 Enforce requirements for adequate record-keeping practices by waste generators.	Require that recordkeeping practices accurately identify the type and the quantity of hazardous waste generated.	EPA; State Health Dept.		RCRA Sec. 3002 (1). AB 1593 (1977).	NA	0	RCRA; State funds.	Required by existing Statute; EPA will enforce.

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<u>Air Quality</u> o No Impact. <u>Water Quality</u> o No Impact. <u>Physical Resources</u> o Indirect impacts on solid waste may include increased feasibility of resource recovery, more pilot programs, decreased amount of hazardous wastes going to Class 1 sites (thereby increasing the life of existing sites and reducing the need for new sites). o Indirect impacts may include necessitating changes in collection and transportation systems. <u>Energy</u> o No Impact. <u>Amenities</u> o No Impact.	<u>Financial</u> o Direct Cost-Public: (Administrative costs) ABAG- 1979 Total r= 6-3/8% \$ 2209 r= 10% \$ 2066 <u>Department of Health</u> 1979 Total r= 6-3/8% \$ 27,838 r= 10% \$ 26,033 <u>Institutional</u> o The legal capability of the State Health Department and ABAG to conduct an <u>in depth</u> study is uncertain. o Direct impact on allocation of State Health Department and ABAG staff due to commitment to help industry.	<u>Direct Cost-Private</u> o No Impact. <u>Production of Goods and Services</u> o No Impact. <u>Income and Investment</u> o No Impact. <u>Consumer Expenditures</u> o No Impact.	<u>Housing Supply</u> o No Impact. <u>Physical Mobility</u> o No Impact. <u>Health and Safety</u> o No Impact. <u>Equity</u> o No Impact. <u>Sense of Community</u> o No Impact. <u>Urban Patterns</u> o No Impact.
<u>Air Quality</u> o No Impact. <u>Water Quality</u> o No Impact. <u>Physical Resources</u> o Direct Impact on solid waste. Less likelihood of accidents or human error in storage, handling or disposal of hazardous wastes; eases clean-up should spill occur during transport. o Indirect benefit for source separation programs. <u>Energy</u> o No Impact. <u>Amenities</u> o No Impact.	<u>Financial</u> o Direct Cost-Public: Enforcing proper labeling; EPA and State Health Department staff time. (Standards have not been set; cost estimates not available.) <u>Institutional</u> o Direct impact on public acceptance; unpopular with some generators of hazardous wastes due to costs of compliance.	<u>Direct Cost-Private</u> o Cost of labels, when needed <u>Production of Goods and Services</u> o No Impact. <u>Income and Investment</u> o Direct Impact on Investment for labeling equipment if needed. <u>Consumer Expenditures</u> o No Impact.	<u>Housing Supply</u> o No Impact. <u>Physical Mobility</u> o No Impact. <u>Health and Safety</u> o Indirect Impact on public health; increases safety in handling of wastes by decreasing the likelihood of accidents and mistakes during handling. <u>Equity</u> o No Impact. <u>Sense of Community</u> o No Impact. <u>Urban Patterns</u> o No Impact.
<u>Air Quality</u> o May have effect on reducing odor and dust. <u>Water Quality</u> o No Impact. <u>Physical Resources</u> o Direct Impact on solid waste; increases safety of storage conditions. <u>Energy</u> o No Impact. <u>Amenities</u> o No Impact.	<u>Financial</u> o Direct Cost-Public: enforcing requirement; EPA and State Health Department staff time. (Standards have not yet been set; cost estimates not available.) <u>Institutional</u> o Direct impact on public acceptance unpopular with some generators of hazardous wastes due to costs of compliance; more likely to affect small industries (since most large generators already have adequate facilities.)	<u>Direct Cost-Private</u> o Cost of better storage facilities, when needed. <u>Production of Goods and Services</u> o No Impact. <u>Income and Investment</u> o Direct Impact on Investment for purchasing and installing new storage facilities, when needed. <u>Consumer Expenditures</u> o No Impact.	<u>Health and Safety</u> o Indirect impact on public health since increases safety while storing wastes by reducing likelihood of unwanted contact with hazardous substances. All other social impacts same as Action 13.1.
<u>Physical Resources</u> o Direct Impact on solid waste management by providing better data. o Indirect impacts; may result in decreased illegal disposal and more waste going to Class 1 sites. All other environmental impacts same as Action 13.1.	<u>Financial</u> o Direct Cost-Public: Enforcing requirement; EPA and State Health Department staff time. (Standards have not yet been set; cost estimates not available.) <u>Institutional</u> o Same as Action 13.1.	<u>Direct Cost-Private</u> o Cost of staff time and supplies to keep better records. <u>Production of Goods and Services</u> o Employment-Indirect impact on employment since may create a very small number of jobs in larger companies. <u>Income and Investment</u> o No Impact. <u>Consumer Expenditures</u> o No Impact.	<u>Health and Safety</u> o Minor indirect beneficial impact on public health; may decrease the likelihood of illegal disposal. All other social impacts same as Action 13.1.

SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 13.4 Improve procedures for preventing and handling spills of hazardous wastes.	<p>a) Evaluate preventive measures for oil and chemical spills on land and recommend improvements as appropriate.</p> <p>b) Provide for training of firefighters in proper procedures for handling spills in County Emergency Services Plans.</p> <p>c) Designate a single responsible agency for each county for notification and handling of spills, such as the County Office of Emergency Services or the County Health Dept.</p>	<p>Appropriate Federal, State regional and local agencies.</p> <p>County Offices of Emergency Services.</p> <p>County & cities for each county.</p>	<p>Ongoing</p> <p>Ongoing</p> <p>Ongoing</p>	<p>Enabling legislation of the agencies.</p> <p>Local resolutions, as appropriate.</p> <p>Local resolutions, as appropriate.</p>	<p>\$ 1,200^a (\$14,000^a 1979)</p> <p></p> <p></p>	<p>\$ 1,200^a (\$14,000^a 1979)</p> <p></p> <p></p>	<p>Federal, State & local funds.</p> <p>State funds, DOT.</p> <p>Local funds.</p>	<p>After plan approval, cities & counties will adopt recommendations.</p>
Action 13.5 Ensure proper handling of hospital wastes.	Require that infectious or pathological wastes from hospitals be disposed through incineration or processed for disposal to sewers.	State Health Dept. and local health depts.	Completed by April 1980.	AB 1593 (1977).	\$ 2,900 ^a (\$33,000 ^a 1980-2000)	\$ 2,900 ^a (\$33,000 ^a 1980-2000)	RCRA; State funds.	State Health Dept. will implement.

^a Public cost.

^b Private cost.

^c Public and private costs.

Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS												
<u>Water Quality</u> <ul style="list-style-type: none">o Indirect impact. Reduces likelihood of hazardous materials being washed into sewers or allowed to run off in next storm.	<u>Financial</u> <ul style="list-style-type: none">o Direct Cost - public: (Administrative costs) Counties and Cities (101) -<table><tr><td>1979</td><td>Total for Region</td></tr><tr><td>r= 6-3/8%</td><td>\$9729</td></tr><tr><td>r= 10%</td><td>\$9098</td></tr></table> County Offices of Emergency Services (9)<table><tr><td>1979</td><td>Total for Region</td></tr><tr><td>r= 6-3/8%</td><td>\$4335</td></tr><tr><td>r= 10%</td><td>\$4054</td></tr></table>	1979	Total for Region	r= 6-3/8%	\$9729	r= 10%	\$9098	1979	Total for Region	r= 6-3/8%	\$4335	r= 10%	\$4054	<u>Direct Cost - Private</u> <ul style="list-style-type: none">o No impact. <u>Production of Goods and Services</u> <ul style="list-style-type: none">o No impact. <u>Income and Investment</u> <ul style="list-style-type: none">o No impact. <u>Consumer Expenditures</u> <ul style="list-style-type: none">o No impact.	<u>Health and Safety</u> <ul style="list-style-type: none">o Indirect impact on public health by decreasing possibility of harm from spills both for persons responsible for clean-up and for the general public. All other social impacts are same as Action 13.1.
1979	Total for Region														
r= 6-3/8%	\$9729														
r= 10%	\$9098														
1979	Total for Region														
r= 6-3/8%	\$4335														
r= 10%	\$4054														
<u>Physical Resources</u> <ul style="list-style-type: none">o Direct impact on operations of transportation systems by improving safety since proper procedure for handling spills is known should a spill occur.															
All other environmental impacts are same as Action 13.1.															

<u>Air Quality</u> <ul style="list-style-type: none">o Appropriate incineration would need to be monitored.	<u>Financial</u> <ul style="list-style-type: none">o Direct Cost - Public: (Administrative and regulatory costs) State Department of Health<table><tr><td>1980-2000</td><td>Total</td></tr><tr><td>r= 6-3/8%</td><td>\$33,417</td></tr><tr><td>r= 10%</td><td>\$24,182</td></tr></table> (Development and enforcement of requirements)	1980-2000	Total	r= 6-3/8%	\$33,417	r= 10%	\$24,182	<u>Direct Cost - Private</u> <ul style="list-style-type: none">o Cost of hospital staff time for preprocessing and occasional new equipment. <u>Production of Goods and Services</u> <ul style="list-style-type: none">o Employment - Indirect impact on employment; temporarily to install any needed facilities; permanent to help with preprocessing. <u>Income and Investment</u> <ul style="list-style-type: none">o Indirect impact due to capital required for new equipment and facilities. <u>Consumer Expenditures</u> <ul style="list-style-type: none">o Possible indirect impact due to increased cost to patients for hospital care.	<u>Health and Safety</u> <ul style="list-style-type: none">o Indirect impact on public health; decreases possibility of accidental contact with pathological or infectious wastes. All other social impacts same as Action 13.1.
1980-2000	Total								
r= 6-3/8%	\$33,417								
r= 10%	\$24,182								
<u>Water Quality</u> <ul style="list-style-type: none">o Should ensure better treatment of infectious materials than landfill disposal.									
<u>Physical Resources</u> <ul style="list-style-type: none">o Direct impact on solid waste management; better preprocessing so can be incinerated or disposed of to sewers.o Indirect benefit of decreasing amount of materials going to land fills.	<u>Institutional</u> <ul style="list-style-type: none">o Indirect impact on public acceptability; possibly unpopular to operators of hospital facilities due to associated costs.o Indirect impact on legal capability since requires amendment to the State Hazardous Waste Control Act (in process).o Direct impact on allocation of State Dept. of Health staff due to need to enforce the requirements.								
<u>Energy</u> <ul style="list-style-type: none">o Appropriate incineration requires more energy than landfill disposal.									
<u>Amenities</u> <ul style="list-style-type: none">o No impact.									

SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 13.6 Establish and enforce regulations for on-site disposal of hazardous wastes.	Establish a permit and monitoring system for on-site disposal of hazardous waste.	State Health Dept.; BAAPCD; RWQCB; county solid waste management agencies.	1978	AB 1593 (1977); agencies' enabling legislation; RCRA:	\$ 53,000 ^a (\$617,000 ^a 1980-2000)	\$ 53,000 ^a (\$617,000 ^a 1980-2000)	RCRA; State funds; Disposal fees.	EPA will implement RCRA.
Action 13.7 Provide funding for adequate enforcement.	Provide stable funding for adequate enforcement of existing regulations by State Dept. of Health and Counties, as appropriate, under RCRA and AB 1593 (1977).	State legislature; U.S. Congress.	As soon as possible.	RCRA	\$232,000 ^a (\$2,700,000 ^a 1979-2000)	\$232,000 ^a (\$2,700,000 ^a 1979-2000)	AB 1593 (1977); RCRA	ABAG will advocate.

^a Public cost.

^b Private cost.

^c Public and private costs.

Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.

ENVIRONMENTAL IMPACTS

Air Quality

- o Indirect impact on air quality since the dust and odors associated with disposal could be monitored more easily.

Water Quality

- o Indirect impact since the appropriate criteria imposed on Class I sites could be applied.

Physical Resources

- o Indirect impact on solid waste management; improves the development and operation of on-site disposal facilities.

All other environmental impacts are same as Action 13.1.

INSTITUTIONAL/FINANCIAL IMPACTS

Financial

- o Direct Cost - Public:

(Administrative and regulatory costs)

State Department of Health -

1980-2000	Total
r = 6-3/8%	\$585,196
r = 10%	\$460,688
(approximately \$30,000/year)	

BAAPCD

1980	Total
r = 6-3/8%	\$ 12,462
r = 10%	\$ 11,270

RWQCB

1980	Total
r = 6-3/8%	\$ 12,462
r = 10%	\$ 11,270

Counties and Cities (101)

1980	Total
r = 6-3/8%	\$ 4,075
r = 10%	\$ 3,685

Institutional

- o Indirect impact on public acceptability; possibly unpopular to generators of hazardous wastes that use on-site disposal due to perceived costs involved.
- o Direct impact since the legal capability of the State Dept. of Health to require and enforce such regulations is uncertain.
- o Direct impact on allocation of State Dept. of Health staff due to need to develop and enforce the requirements.

ECONOMIC IMPACTS

Direct Cost - Private

- o Indirectly, cost of on-site disposal facility modifications

Production of Goods and Services

- o Employment - Indirect impact on employment, temporarily only, to install any needed facility modifications.

Income and Investment

- o Indirect impact; capital required for any new facility modifications. Amount specific to each on-site disposal site.
- o Possible indirect impact on profits due to costs of compliance.

Consumer Expenditures

- o No impact.

SOCIAL IMPACTS

Health and Safety

- o Indirect impact on public health since decreases the likelihood of improper disposal of hazardous wastes.

All other social impacts are same as Action 13.1.

See Impacts of Actions 13.1 - 13.6.

Financial

- o Direct Cost-Public: (Administrative cost in addition to costs in recommendations 13.1 - 13.6.)

1979-2000	Total
r = 6-3/8%	\$2,143
r = 10%	\$1,972

Department of Health

1981-2000	Total
r = 6-3/8%	\$2,701,227
r = 10%	\$1,885,411

Institutional

- o Direct impact on legal capability since increases the chance of State and Federal legislation (or budget allocations) to establish.
- o Direct impact on State Department of Health staff since funds would be available to hire additional necessary staff.

See impacts of Actions 13.1 - 13.6.

See impacts of Actions 13.1 - 13.6.

SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
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Policy 14

FUTURE LANDFILL DISPOSAL SITES AND FACILITIES SHOULD BE LOCATED SO THAT THEY DO NOT HAVE ADVERSE EFFECTS ON HUMAN HEALTH AND SAFETY, AIR AND WATER QUALITY, WILDLIFE, CRITICAL ENVIRONMENTAL RESOURCES AND URBANIZED AREAS.

Action 14.1

If additional disposal capacity for hazardous wastes is needed (see Action 11.3), develop necessary arrangements that would lead to reservation and acquisition of site(s).

Pending the results of Action 11.3 convene affected counties to determine areas for further study and develop necessary inter-governmental and public-private arrangements for financing studies, reports, public review and site(s) reservation and/or acquisition.

Affected local jurisdiction(s) (to be determined) to be assisted by ABAG, SSWMB and State Dept. of Health if requested.

Ongoing

Local zoning authority; SB 424 (1977); RCRA

To be determined

None needed After plan approval, cities (contingent on & counties will Action 11.3), adopt recommendations. Federal and State grants if Action 14.1 is needed.

Policy 15

THE REGIONAL WASTEWATER SOLIDS STUDY RECOMMENDATIONS, WHEN COMPLETED, SHOULD BE INTEGRATED INTO LOCAL AND REGIONAL SOLID WASTE MANAGEMENT PLANS.

Action 15.1

Complete the regional wastewater solids management plan.

Complete the regional plan for long-term wastewater solids management to become part of the regional solid waste management plan.

San Francisco Bay Region Wastewater Solids Study (WSS)

1978.

Federal Water Pollution Control Act (FWPCA) Amendments of 1972, Section 201; JPA of WSS.

\$64,000^a
(\$752,000^a 1978)

0

Federal and State grants; Local funds. EPA and SWRCB will ensure implementation.

Action 15.2

Integrate the Wastewater Solids Study recommendations into regional and local solid waste management plans.

Integrate the Wastewater Solids Study recommendations into regional and local solid waste management plans. Regional issues identified in the regional wastewater solids management plan shall be addressed in the continuing planning process of the EMP.

ABAG in conjunction with SWRCB, RWQCB, other designated wastewater management agencies, and county solid waste management agencies.

Continuous after Dec. 1977

FWPCA Section 208; PL 95-217; RCRA; SB 424 (1977)

To be determined

To be determined

Federal grants. EPA, SWRCB, and SSWMB will ensure implementation.

Policy 16

FACILITIES PLANNING, DESIGN, AND CONSTRUCTION FOR WASTEWATER SOLIDS MANAGEMENT SHOULD BE ACCOMPLISHED BY LOCAL WASTEWATER MANAGEMENT AGENCIES IN CONFORMANCE WITH THE COUNTY SOLID WASTE MANAGEMENT PLANS, THE ENVIRONMENTAL MANAGEMENT PLAN (208 PLAN), AND FEDERAL AND STATE REQUIREMENTS

Action 16.1

Develop facilities plans (Step 1).

Develop facilities plans for wastewater solids management based on the regional wastewater solids plan.

Wastewater solids study will develop facilities plans for EBMUD, CCCSD, City & County of San Francisco, Cities of San Jose/Santa Clara; other wastewater agencies will develop their own facilities plans as necessary.

Dec. 1978 for initial facilities plans.

FWPCA Section 201; PL 95-217; RCRA.

\$ 78,000^a
\$(912,000^a 1979)

0

Federal and State grants; local funds. EPA and SWRCB will ensure implementation.

^a Public cost.

^b Private cost.

^c Public and private costs.

Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.

ENVIRONMENTAL IMPACTS

INSTITUTIONAL/FINANCIAL IMPACTS

ECONOMIC IMPACTS

SOCIAL IMPACTS

Physical Resources

- o Indirect impacts on solid waste management; decrease rate at which existing sites are filled and should ensure future Class I site capacity.

Financial

- o Direct Cost-Public:
Staff time of the affected local jurisdiction to reserve site, including general plan changes and critical area rezoning. (Costs contingent upon determination of need for Class I site.)

Same as Action 11.3.

Same as Action 11.3.

Energy

- o No impact.

All other environmental impacts are same as Action 11.3.

- o See Action 11.3.

Institutional

- o See Action 11.3.

Air Quality

- o Indirect benefits since the plan would be in conformance with air quality goals and standards.

Water Quality

- o Indirect benefits since the plan would meet requirements for protection of ground and surface water quality.

Physical Resources

- o Direct benefits in management of wastewater solids.

- o Indirect benefits for surrounding ecosystems of disposal sites due to protection of surface and ground water quality.

Energy

- o Indirect benefits in energy production since the plan may include site specific co-combustion projects (with refuse).

Amenities

- o Indirect benefits since the plan would ensure mitigation measures for impacts related to amenities.

Financial

- o Direct Cost-Public:
(Administrative and Regulatory Costs-plan development)
San Francisco Bay Wastewater Solids Study-

1978 \$1,800,000 (partially spent)

- o Fiscal Effects on Local Government-
- Proposed projects included in the plan may be financed by general obligation or revenue bonds.

- Property tax rate may increase slightly

- Part or all of the proposed project would be grant eligible after plan approval.

Institutional

- o Implementation of regional plan may require JPA among municipal wastewater agencies.

- o Acceptable to wastewater treatment agencies and local solid waste management agencies.

- o Direct impact on involved agencies due to staff that must be reallocated to work on plan development.

Production of Goods and Services

- o The plan may recommend marketing of sludge.

Income and Investment

- o Proposed projects may provide additional income and require private investment.

Consumer Expenditures

- o Cost for implementing the plan would be passed on to the public

Housing Supply

- o No impact.

Physical Mobility

- o No impact.

Health and Safety

- o The plan would be in compliance with health and safety standards to reduce hazards to public health.

Sense of Community

- o No impact.

Urban Patterns

- o The plan may help preserve marginal agricultural land from urban or suburban development.

Same as Action 15.1.

Financial

- o Direct Cost-Public:
(Costs included under Action 1.2.)

Same as Action 15.1.

Same as Action 15.1.

All other financial/institutional impacts same as Action 15.1.

See environmental impacts for Action 16.4.

Financial

- o Direct Cost-Public:
(Administrative costs of plan development)

1978 \$970,000

See economic impacts for Action 16.4.

See social impacts for Action 16.4.

SOLID WASTE MANAGEMENT PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 16.2 Review proposed facilities plans.	Review proposed facilities plans and approve those that are consistent with the regional solid waste management plan, and the 20 year project list in the 208 plan.	EPA, SWRCB, RWQCB, State Health Dept., ABAG, State Clearinghouse.	1979.	FWPCA Sections 201 and 208, Office of Management and Budget-Circular A-95; SB 424 (1977); RCRA	\$ 4,000 ^a (\$48,000 ^a 1978-2000)	0	Federal and State grants; local and State general funds.	Agencies will carry out ex-grants; listing review authorities.
Action 16.3 Design wastewater solids management facilities (Step 2).	Design wastewater solids management facilities according to the approved facilities plans.	Wastewater management agencies.	1979- 1980.	FWPCA Section 201; PL 95-217; RCRA	\$ 1,266,000* (\$14,800,000 ^a 1979)	0	Federal and State grants; local funds.	EPA and SWRCB will ensure implementation.
Action 16.4 Construct wastewater solids management facilities (Step 3).	Construct wastewater solids management facilities according to the approved facilities plan.	Wastewater management agencies.	1981- 1982.	FWPCA Section 201; PL 95-217; RCRA	\$24,800,000* (\$289,000,000 ^a 1980-2000)	0	Federal and State grants; local funds.	EPA and SWRCB will ensure implementation
<p>^a Public cost.</p> <p>^b Private cost.</p> <p>^c Public and private costs.</p> <p>Note: Figures in parentheses are total costs expressed as present discounted value for recommended action throughout the period of implementation.</p> <p>*Costs are included in Action 5.1 of the Water Quality Management Plan.</p>								

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS						
See impacts for Action 16.4.	<u>Financial</u> <ul style="list-style-type: none">o Direct Cost - Public: (Administrative costs of reviewing facilities plans) <u>ABAG</u> <table><tr><td>1978-2000</td><td>\$400/year</td></tr></table> <u>Reviewing Agencies (7) -</u> <table><tr><td>1978-2000</td><td>\$3,750/year</td></tr></table> <u>Institutional</u> <ul style="list-style-type: none">o Reviewing agencies will have to allocate staff time to review plans.	1978-2000	\$400/year	1978-2000	\$3,750/year	See impacts for Action 16.4.	See impacts for Action 16.4.		
1978-2000	\$400/year								
1978-2000	\$3,750/year								
See impacts for Action 16.4.	<u>Financial</u> <ul style="list-style-type: none">o Direct Costs-Public: (Administrative costs of facilities design) <table><tr><td>1979</td><td>\$7,000,000 (committed funds)</td></tr><tr><td>1979</td><td>\$9,700,000 (funds not yet allocated - contingent on review and approval)</td></tr></table>	1979	\$7,000,000 (committed funds)	1979	\$9,700,000 (funds not yet allocated - contingent on review and approval)	See impacts for Action 16.4.	See impacts for Action 16.4.		
1979	\$7,000,000 (committed funds)								
1979	\$9,700,000 (funds not yet allocated - contingent on review and approval)								
<u>Air Quality</u> <ul style="list-style-type: none">o Direct temporary impact due to increase in dust level during construction.o Direct impact due to reduction in odor problems at new processing facilities. <u>Water Quality</u> <ul style="list-style-type: none">o Direct benefits since the construction of facilities would ensure adequate handling and disposal of wastewater solids to protect ground and surface water quality. <u>Physical Resources</u> <ul style="list-style-type: none">o Direct benefits in solid waste management.o Direct benefits for marginal agricultural lands if sludge is used for land application. <u>Energy</u> <ul style="list-style-type: none">o Direct adverse impact due to energy required for facilities construction and operation of facilities. <u>Amenities</u> <ul style="list-style-type: none">o Direct temporary, adverse impact due to noise associated with facilities construction.o Indirect adverse impact due to potential noise problems associated with operation of equipment at the facilities.	<u>Financial</u> <ul style="list-style-type: none">o Direct Cost-Public: (Costs of facility construction) <table><tr><td>1980</td><td>\$70,000,00 (funds committed)</td></tr><tr><td>1980</td><td>\$97,000,00 (funds contingent upon review and approval)</td></tr></table> <p>(Costs of operation and maintenance)</p> <table><tr><td>1981-200</td><td>\$16,700,000/year</td></tr></table> <ul style="list-style-type: none">o Fiscal Effects on Local Governments- Facilities construction may be financed by general obligation or revenue bonds.- Property tax rate may increase slightly.- Federal and State grants may be available (up to 87½% of the construction cost). <u>Institutional</u> <ul style="list-style-type: none">o Facilities construction may require JPA or other agreements among wastewater management agencies and other public agencies.o Facilities construction may be viewed positively by wastewater management agencies and the public.	1980	\$70,000,00 (funds committed)	1980	\$97,000,00 (funds contingent upon review and approval)	1981-200	\$16,700,000/year	<u>Production of Goods and Services</u> <ul style="list-style-type: none">o Employment - Temporary and permanent increase in employment due to construction and operation of facilities. <u>Income and Investment</u> <ul style="list-style-type: none">o Land application of sludge may require private investment, and marketing of sludge would require private investment. <u>Consumer Expenditures</u> <ul style="list-style-type: none">o Cost for facilities construction would be passed on to the public.	<u>Housing Supply</u> <ul style="list-style-type: none">o No impact. <u>Physical Mobility</u> <ul style="list-style-type: none">o No impact. <u>Health and Safety</u> <ul style="list-style-type: none">o Construction of the needed facilities would improve the handling and disposal of sludge (thereby reducing health and safety hazards). <u>Sense of Community</u> <ul style="list-style-type: none">o Potential Impact if odors or other nuisance or health problems accompany a facility. <u>Equity</u> <ul style="list-style-type: none">o No impact. <u>Urban Patterns</u> <ul style="list-style-type: none">o If the facilities could facilitate land application of sludge, it may have indirect, minor benefits for preserving marginal agricultural land.
1980	\$70,000,00 (funds committed)								
1980	\$97,000,00 (funds contingent upon review and approval)								
1981-200	\$16,700,000/year								

Air Quality Maintenance Plan

recommendations

Air Quality Maintenance Plan recommendations

RECOMMENDATIONS	DIRECT BENEFITS (Hydrocarbon emission reductions, tons/day) 1985 2000	RESPONSIBLE AGENCY (or agencies)	SCHEDULE FOR ACTION A - Adoption I - Fully Implemented	TOTAL COST/YEAR OF RECOMMENDED ACTION	FINANCING MECHANISM	LEGAL AUTHORITY
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I. Stationary source controls

GENERAL POLICY: REDUCE HYDROCARBON EMISSIONS FROM STATIONARY SOURCES

Action 1

Use available control technology on existing hydrocarbon sources, allowing a reasonable amortization schedule for air pollution control equipment. Available control technology means an emission limitation based on the maximum degree of reduction of hydrocarbons emitted from or which results from any emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental and economic impacts and other costs, determines is achievable for such facility through application of available methods, systems and techniques. Technology for selected processes, which have been included in the projections of emission reductions, are as follows:

225 337	Bay Area Air Pollution Control District (BAAPCD)	A - 1980 I - 1985	\$529,000 ^a *\$18,000,000 ^b	Administrative/Regulatory - Ad valorem tax revenues - ARB subvention Funds - Federal Clean Air Act funds	BAAPCD Enabling Legislation
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Operating/Maintenance
- Private

Capital
- Private
- California Pollution Control Financing Authority
- Federal Small Business Administration Loan Programs

*Costs are considered underestimates due to choice of discount rate.

PROCESS

TECHNOLOGY

Organic storage.....	Secondary seals
Tar pots.....	Loading door assembly
Paint spray booth.....	Incinerator or low/no solvent coatings
Architectural coating.....	Low solvent coatings
Dry cleaning.....	Closed system with solvent recovery
Cable tar coating.....	Incineration
Gasoline bulk storage.....	Floating roof or fixed roof & vapor recovery
Auto service station storage tanks.....	Balanced system
Auto fill operations.....	Balance system

Action 2

Continue the review of new and modified industrial facilities (new source review), using offsets and/or other provisions of the Clean Air Act Amendments of 1977 to allow for a reasonable level of growth consistent with the requirements of the act. Use technology to produce the lowest achievable emission rate (LAER), as defined by the Clean Air Act Amendments of 1977, on new and expanded hydrocarbon sources.

Combination of ACT in Action 1 and LAER are estimated to reduce hydrocarbon emissions by 225 tons/day in 1985 and 337 tons/day in 2000. From NSR and offsets, 64 tons/day are targeted for 1985. Additional emission reductions required to maintain standards will depend on regional growth rates and success of other control programs. It is highly unlikely that more than 150 tons/day can be reduced by 2000.

BAAPCD

Currently being implemented

Increased cost to industry for emission offset purchases.

BAAPCD enabling legislation

^a Public agency

^b Private

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS
<p><u>Air Quality</u></p> <ul style="list-style-type: none"> o See "Direct Benefits" column. <p><u>Water Quality</u></p> <ul style="list-style-type: none"> o No impacts. <p><u>Physical Resources</u></p> <ul style="list-style-type: none"> o Between 18,000 and 25,000 gallons per day of organic solvents could be conserved from proposed organic solvent controls. o Available control technology would consume construction materials, water, disposal facilities, etc. However, it does comprise many things and has not been identified with regard to Bay Area industrial operations. Consequently, more detailed assessments will require further definition of ACT. <p><u>Energy Resources</u></p> <ul style="list-style-type: none"> o Use of available control technology for hydrocarbon emissions (including the use of high solids/water base coatings and closed systems for organic liquid storage) should not result in a net energy penalty. Certain technologies such as industrial water based coatings and solvent incineration involve energy penalties, while other technologies such as high solids coatings and improved vapor recovery systems produce energy savings. o Current new source review activities could be perpetuating excessive energy use by old and inefficient plant operations that are presently unable or unwilling to meet stringent NSR requirements in order to modernize. <p><u>Amenities</u></p> <ul style="list-style-type: none"> o The principal impact of the stationary source actions would be their contribution toward the improvement of air quality in the Bay Area. 	<p><u>Institutional</u></p> <ul style="list-style-type: none"> o The governmental structure for implementing these control measures already exists in the Bay Area Air Pollution Control District which actively enforces air pollution control programs in the Bay Area. The measures being proposed for consideration here are simply more stringent extensions of measures already in force for control of industrial and stationary sources of air pollution. <p><u>Financial</u></p> <p>Direct Public Costs of Implementation</p> <ul style="list-style-type: none"> o See public costs (a) in the column headed "Total Cost/Yr. of Recommended Action." <p>Fiscal Effects on Local Governments</p> <ul style="list-style-type: none"> o The BAAPCD operating funds are obtained from local property taxes and State and Federal grants. Exactly how the costs will be apportioned is presently unclear; however, no direct costs to local governments are expected 	<p><u>Production of Goods and Services</u></p> <ul style="list-style-type: none"> o Increased technological dependence by the Bay Area industrial sector to improve regional air quality will require considerable capital investment. In some instances, these added restrictions and costs may adversely affect the competitive position of local industries inter-regionally where the cost of these investments may be passed on to the consumers. o Measures pertaining to coatings will require that process changes occur in order to reduce levels of air pollution. Changed product composition resulting from different processes could result in reduced durability and therefore increased product liability potential for the coatings industry. Phased implementation of this program should help minimize these problems. o Increased cost to industry for emission offset purchases o Special consideration may be needed for food processing industry in meeting other public health standards. <p><u>Income and Investment</u></p> <ul style="list-style-type: none"> o See Private Costs (b) in the column headed "Total Cost/Yr of Recommended Action." <p><u>Consumer Expenditures</u></p> <ul style="list-style-type: none"> o While the direct costs of implementing these measures will initially fall upon industry, many, if not all of them will find their way to the consumer and local taxpayer. Since supporting this type of activity is not the type of expense to result in increased productivity or in direct economic return for most of them, it may be considered an inflationary cost. In addition, higher prices for Bay Area products reflecting this cost may become less attractive to non-Bay Area consumers who may look elsewhere for the same product. On the other hand, consumers and local taxpayers may view the costs of implementation as an investment having non-economic but equally valuable return. In either case, implementation of the proposed control measures is likely to result in an increased cost of consumer goods. 	<p><u>Housing Supply</u></p> <ul style="list-style-type: none"> o No impact. <p><u>Physical Mobility</u></p> <ul style="list-style-type: none"> o No impact. <p><u>Health and Safety</u></p> <ul style="list-style-type: none"> o Air quality standards for each of the pollutants are based upon scientifically derived air quality criteria. Air quality criteria are an expression of current information concerning the relationship between various concentrations of pollutants in the air and their adverse effects on man and his environment. The control measures being proposed are designed to meet the standards, i.e., to reduce the concentration of various pollutants in the air. Pollutant concentration reductions from the air will reduce potentially adverse effects from these substances, thereby favorably impacting public health. o With regard to safety, the stationary source control program may eliminate many hazards associated with the use and storage of combustible solvents. <p><u>Sense of Community</u></p> <ul style="list-style-type: none"> o No impact. <p><u>Equity</u></p> <ul style="list-style-type: none"> o A major question of equity involves the competitive position of Bay Area industries that are placed under the restrictions and controls proposed by the stationary source measures. This question can be extended to employment opportunities for the local population. Some employment and business opportunities will be created in local industries producing air pollution control equipment. However, whether or not those opportunities will be available or sufficient to offset increased unemployment resulting from competitive disadvantage (see "Production of Goods and Services") is an issue requiring further exploration. The willingness of the U. S. Environmental Protection Agency and the California Air Resources Board to require similar measures outside of the Bay Area is of obvious concern to the region.

AIR QUALITY MAINTENANCE PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	DIRECT BENEFITS (Hydrocarbon emission reductions, tons/day) 1985 2000		RESPONSIBLE AGENCY (or agencies)	SCHEDULE FOR ACTION A - Adoption I - Fully Implemented	TOTAL COST/YEAR OF RECOMMENDED ACTION	FINANCING MECHANISM	LEGAL AUTHORITY
II. Mobile source controls							
GENERAL POLICY: REDUCE HYDROCARBON EMISSIONS FROM MOTOR VEHICLES							
Action 3 Implement more stringent vehicle (light duty and heavy duty) exhaust emission controls--approx. 50% reduction below 1977 prescribed levels.	-	62	California Air Resources Board (CARB)	A - 1980 I - 1990	\$3,000 ^a \$24,910,000 ^b	- Private	Mulford-Carrell Air Resources Act
Action 4 Implement Statewide inspection/maintenance program for light and heavy duty vehicles.	23	58	CARB and/or Bureau of Automotive Repair	A - 1978 I - 1985	\$1,395,000 ^a \$16,892,000 ^b	- I/M Program revenues - State General Fund	New Legislation Required
Action 5 Require exhaust control devices on existing heavy duty gasoline vehicles Statewide.	25	-	CARB	A - 1979 I - 1985	\$8,000 ^a \$1,534,000 ^b	- Private	New Legislation Required
Action 6 Permit no further delays in implementing strict emission requirements on automobiles, provided, however, that if such delays are granted by either the California Air Resources Board or Congress, this region should be provided with extensions beyond the deadlines required by the Clean Air Act Amendments of 1977.							

^a Public agency

^b Private

ENVIRONMENTAL IMPACTS

INSTITUTIONAL/FINANCIAL IMPACTS

ECONOMIC IMPACTS

SOCIAL IMPACTS

Air Quality

- o See "Direct Benefits" column.

Water Quality

- o No impact.

Physical Resources

- o No significant impact on physical resources is expected from more stringent exhaust emission controls where such can be achieved by further technological improvement of conventional vehicle engines. However, if new engine designs requiring alternative fuel sources are pursued to achieve this measure, then new materials may be required to manufacture these engines. (For example, electrically-powered vehicles may require special material to construct batteries capable of providing satisfactory power performance.) Of greater significance is the possibility that new engine technologies will utilize less specialized fuels, thereby reducing dependence on gasoline or petroleum per se.

Energy Resources

- o Mobile source emissions controls will produce significant energy savings through improved maintenance of engines and emission control systems, as well as through the eventual development of new engine technologies. The inspection and maintenance program and the retrofit program for heavy duty gasoline trucks could save approximately 10,000,000 gallons of gasoline per year, or about 240,000 barrels of oil per year. New engine technologies could eventually produce as much as 50 percent improvement in vehicle mileage, which in turn would mean annual energy savings of millions of barrels of oil.

Institutional

- o The governmental structure for implementing mobile source control measures already exists in the California Air Resources Board (CARB) which presently has primary responsibility for controlling vehicular emissions in the State. However, specific institutional arrangements for implementing both the inspection/maintenance programs and the heavy duty gasoline retrofit program will be required since none of them are within the current authority of CARB.

The California Air Resources Board and/or the Bureau of Automotive Repair (BAR) would likely assume responsibility for the regulation and operation of I/M programs. Local governmental agencies involvement is not anticipated. The CARB has had experience with implementing retrofit programs in the past. It is assumed that implementation of the proposed heavy duty gasoline retrofit program would be assumed by CARB.

Inspection/maintenance (I/M) programs can be directly administered by the State, or franchised out to private contractors. Data from a pilot I/M program currently being operated in the South Coast Air Basin suggests that the operation of such programs might make disproportionate demands on the administrative resources of the State. Therefore, a private-operated/public-monitored program may be preferable for the Bay Area.

FinancialDirect Public Cost of Implementation

- o See Public Costs (a) in the column headed "Total Cost/Yr of Recommended Action."

Fiscal Effect on Local Government

- o No impact.

Production of Goods and Services

- o A slight increase in the production activity of some industries servicing the automobile manufacturing industry might occur as new tooling required to produce newly designed engines is needed. New engine design may stimulate substantial change in the automotive repair and service industry. The implementation of the inspection/maintenance (I/M) measures would add a new line of service for the California automotive service industry. Some services presently exist for identifying defective emission control equipment on cars. They are not, however, universally applicable to all California registered vehicles. I/M programs for light, medium, and heavy duty vehicles would offer a universally applied service program for identification and repair of vehicles with excessive emission caused by mal-adjusted or defective emission control equipment.

Income and Investment

- o See Private Costs (b) in the column headed "Total Cost/Yr of Recommended Action."

Consumer Expenditures

- o The manufacture of new engine technologies would necessitate an increase in the initial cost of new vehicles. This increase may be offset, however, by savings in operating cost throughout the lifetime of the vehicle. Catalytic converters are estimated to cost about \$350.00 per heavy duty vehicle. (Price includes cost of the device and installation charges.) For a light and medium duty vehicle I/M programs an inspection fee of \$5-6.00 per vehicle would be required. The average cost of repairs for the catalyst equipped vehicle is about \$45.00.

Housing Supply

- o No impact.

Physical Mobility

- o Because of increased cost of private transportation, the mobility of the limited income segment of the Bay Area population may be impaired. This would be particularly true for those located in other than urban centers.

Health and Safety

- o These control measures would substantially reduce carbon monoxide emissions from motor vehicles. Therefore, substantial health-related benefits may accrue to those segments of the population that experience the heaviest exposure to carbon monoxide concentrations while residing, working or shopping in urban centers.

Sense of Community

- o No impact.

Equity

- o The measures will adversely impact some groups in urban areas more severely than others--particularly those with limited income.

Urban Pattern

- o No impact.

RECOMMENDATIONS	DIRECT BENEFITS (Hydrocarbon emission reductions, tons/day) 1985 2000	RESPONSIBLE AGENCY (or agencies)	SCHEDULE FOR ACTION A - Adoption I - Fully Implemented	TOTAL COST/YEAR OF RECOMMENDED ACTION	FINANCING MECHANISM	LEGAL AUTHORITY
III. Transportation controls GENERAL POLICY: REDUCE MOTOR VEHICLE EMISSIONS THROUGH TRANSPORTATION ACTIONS TO REDUCE VEHICLE USE						
Action 7 Preferential parking for carpools and vanpools.	0.1 Not estimated separately;	Cities, counties, employers, MTC.	A - 1978 I - 1985	\$886,000 ^a	- Federal Aid highway programs - Local Transportation Development Act funds	- Caltrans enabling legislation - Local planning and traffic control enabling legislation
Action 8 Pursue a three-fold transit improvement strategy. (1) MTC, in cooperation with transit operators, will adopt service improvement objectives which can be financed by the existing commitment of resources to transit. Improved capacity, service, and ridership are contemplated. A measure of the improvement expected should be agreed to and committed to in the context of the RTP by October 1, 1978. (2) MTC will continue its efforts to identify the need for additional services (as it has, for example, in the elderly and handicapped program and more recently in the Minority Transportation Needs Assessment Project (MTNAP) and to pursue providing additional services as they are justified. A measure of the improvement expected will continue to be developed as these special needs are examined and as the demand for transit services expands generally. (3) During the commute hours all major transit systems in the Bay Area are at capacity. Any substantial increase in ridership will be dependent upon increased Federal or State financial assistance. The amount of rider-	1.3	MTC, transit districts (e.g., MUNI, AC, BART)	A - 1978 I - 1985	\$32.2 million ^a	- Federal Mass Transportation Assistance Programs - Fare revenues - Local Transportation Development Act Funds - State Highway Trust Fund diversions	- Local Transit District Enabling Legislation - Bay Area Rapid Transit District Enabling Legislation - Interagency Memoranda of Understanding

^a Public agency^b Private

ENVIRONMENTAL IMPACTS

INSTITUTIONAL/FINANCIAL IMPACTS

ECONOMIC IMPACTS

SOCIAL IMPACTS

Air Quality

- o See "Direct Benefits" column.

Water Quality

- o No impact.

Physical Resources

- o No impact.

Energy

- o Gasoline savings from carpooling, the shift to transit, improved traffic flow, and the shift to bicycles.
- o Minor increase in transit fuel consumption.

Amenities

- o Cleaner air.

Institutional

- o Additional transit service would be provided by the present operators.
- o Ride sharing programs would be handled by a recently established non-profit corporation.
- o Caltrans would implement high-occupancy vehicle (HCV) lanes and carpool lots.
- o Cities and counties would implement bicycle measures. Private employers and businesses would be encouraged to participate.

Financial

- o Certain measures, notably the additional transit services, bus/carpool lanes, and bicycle systems, are costly. There is some funding available, but additional funds will be needed. MTC has suggested that the State and Federal governments provide the funding necessary to support the transit improvements.

Production of Goods and Services

- o New employment in the transit sector.

Consumer Expenditures

- o Savings to those commuters utilizing carpools, vanpools or transit.

Housing Supply

- o No impact.

Physical Mobility

- o Additional transit service would increase mobility of all transit users.
- o Carpool/vanpool measures would increase travel options for most commuters.

Health and Safety

- o Reduction in auto accidents with improved peak period flow.
- o Possible increase in number, but not rate, of bicycle accidents with increased usage.

Sense of Community

- o No impact.

Urban Patterns

- o May encourage a more compact land use pattern, with employees living closer to transit lines and/or their jobs.

Equity

- o Measures such as additional transit service will particularly benefit low income, handicapped and other persons who depend on this mode of travel.

IMPACTS IDENTIFIED ARE FOR
ACTIONS 7, 8, 9, 10, and 11

AIR QUALITY MAINTENANCE PLAN RECOMMENDATIONS (continued)

RECOMMENDATIONS	DIRECT BENEFITS (Hydrocarbon emission reductions, tons/day) 1985 2000	RESPONSIBLE AGENCY (or agencies)	SCHEDULE FOR ACTION A - Adoption I - Fully Implemented	TOTAL COST/YEAR OF RECOMMENDED ACTION	FINANCING MECHANISM	LEGAL AUTHORITY
ship increase is directly affected by the amount of increased State and Federal funding. Provision of additional transit capacity represents a positive transportation strategy. Thus the State and Federal governments are encouraged to provide necessary funding support for transit improvements to offset any air quality deficiencies caused by deleting less desirable transportation control measures. Without this financial support, transit capacity cannot be significantly expanded.						
Action 9 Support development of high occupancy vehicle lanes and/or ramp metering on selected freeway segments when justified on an individual project basis.	0.2 Not estimated separately.	Caltrans, transit districts, cities and counties.	A - 1979 I - 1985	\$7,438,000 ^a	- Federal Aid Highway Programs - State Highway Programs funds	- AB 69 (State Transportation Planning Enabling Legislation) - AB 363 (Bay Region Transportation Planning Legislation) - Caltrans Enabling Legislation - Local Planning and Traffic Control Enabling Legislation
Action 10 Provide more ride sharing services such as jitneys and vanpools. Objectives need to be developed and monitored to gauge the desirable rate of expansion.	1.7	Caltrans, employers, MTC	A - Previously adopted I - 1979	\$300,000 ^a	- Federal Transportation Funding	
Action 11 Develop more extensive and safe bicycle systems and storage facilities. Objectives need to be developed and monitored to gauge the desirable rate of expansion.	2.0	Cities, counties, MTC, Caltrans	A - 1980 I - 1985	\$438,000 ^a	- Federal Aid Highway Programs - Local Transportation Development Act Funds	- Federal-Aid Highway Legislation - Local Transportation Development Act Legislation
Action 12 MTC is requested to consider the following action: "Complete construction of certain portions of State freeway systems in which there are now pollution-causing gaps."		MTC	1978	0		- MTC enabling legislation

ENVIRONMENTAL IMPACTS	INSTITUTIONAL/FINANCIAL IMPACTS	ECONOMIC IMPACTS	SOCIAL IMPACTS

RECOMMENDATIONS	DIRECT BENEFITS (Hydrocarbon emission reductions, tons/day) 1985 2000	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION A - Adoption I - Fully Implemented	TOTAL COST/YEAR OF RECOMMENDED ACTION	FINANCING MECHANISM	LEGAL AUTHORITY
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IV. Other measures

GENERAL POLICY: ENSURE MAINTENANCE OF THE OXIDANT STANDARD BEYOND 1985-87

Action 13

Adopt between 1985 and 1987, and implement in 1990 or thereafter, one or more of the following measures to ensure maintenance of the oxidant standard through the year 2000, subject to further evaluation of the measures during the continuing planning process:

- o Reduce hydrocarbon emissions from small gasoline engines
- o Reduce hydrocarbon emissions from off-highway mobile sources
- o Implement more stringent vehicle exhaust emission controls--Approximately 60-80% reduction below 1977 prescribed levels.
- o Provide additional transit

0 24

ARB; BAAPCD;
ABAG; MTC;
transit
operators.

A - 1985-87
I - 1990-95

To be
determined

To be
determined

Clean Air Act,
Mulford-
Carrell Act

ENVIRONMENTAL IMPACTS

INSTITUTIONAL/FINANCIAL IMPACTS

ECONOMIC IMPACTS

SOCIAL IMPACTS

Air Quality

- o The four measures are estimated to reduce hydrocarbon emissions by 24 tons/day by the year 2000
- o Localized increases in CO, NO_x and particulates where diesel fuel substitutes for gasoline and as result of increased transit

Water Quality

- o No impacts

Physical Resources

- o Reductions in adverse biological effects on vegetation (trees, shrubs, agricultural crops) from improved air quality

Energy

- o May result in use of alternative fuel sources; less specialized fuels
- o May require new materials for engine manufacture (e.g. batteries for electrically powered vehicles)
- o Increases in transit would save millions of gallons of gasoline from reduced auto use (e.g. 25% increase would save approximately 29.5-59.5 million gallons of gasoline per year; 50% increase would save approximately 44.5-87.6 million gallons of gasoline per year).
- o Increases in transit would consume diesel fuel (e.g. 25% increase would consume approximately equivalent of 131,000 barrels crude oil or 5.5 million gallons of gasoline; 50% increase would consume approximately equivalent of 263,000 barrels crude oil or 11 million gallons of gasoline annually)

Amenities

- o Air quality improvements would contribute to overall visual quality.

Institutional

- o Authorities to implement these measures already exist
- o Institutional mechanisms to carry out these measures already exist

Financial

- o Public costs to implement these measures will be determined during the continuing planning process
- o Additional transit rolling stock would depend on availability of Federal and State financial assistance.

Production of Goods and Services

More stringent vehicle exhaust emission controls may slightly increase production activity of some auto manufacturing service industries. Inspection/maintenance would add new line of service to auto service industry.

Additional transit would result in employment. For example a 25% increase would require approximately 855 additional buses; a 50% increase approximately 1710 buses. Assuming one full-time position for each additional bus, the resulting jobs range from 855-1710 new transit driver jobs, plus an uncalculated number of service jobs (e.g. transit mechanics, captains, etc).

Income and Investment

- o Employment benefits will result in total wage and salary increases
- o Capital investment for transit improvement would require Federal and State financial assistance. Operation and maintenance costs would be financed from system revenues.

Consumer Expenditures

- o New equipment emission standards would add to costs of small gasoline engines (e.g. lawnmowers, garden tractors) and off-highway mobile sources (e.g. tractors, graders). Some costs could be kept low by requiring relatively simple control systems (crankcase ventilation for small gasoline engines). Retrofit for off-highway mobile sources may be relatively inexpensive as positive crankcase ventilation (PCV) devices cost little and do not significantly effect performance. Equipment manufacturers are currently working on reducing exhaust emissions; most new equipment being produced with diesel engines and climate enables year round use and more rapid expiration of service life.

- o More stringent vehicle exhaust emission controls would increase costs of new vehicles but may be offset against savings in operating costs throughout life of vehicle. Example costs: catalytic converter cost estimated at \$50 per heavy duty vehicle; I/M fees of \$5-6 per vehicle for light and heavy duty vehicles; average repair for catalyst equipped vehicle \$45

Housing

- o no impacts

Physical Mobility

- o Transit improvements would improve the mobility of transit dependent, low-income and individuals in proximity to transit.

- o Increases in cost of private transportation (associated with increased costs of new vehicles to meet exhaust emission controls) could affect the mobility of individuals dependent on the private auto. May impair the mobility of the limited income segment of the population living in rural areas or areas not serviced by transit.

Public Health and Safety

- o Maintenance of Federal photochemical oxidant standard will have public health benefits for general population and particularly for sensitive populations such as elderly, children and chronically or temporarily ill.

- o Exhaust controls for small gasoline engines will have localized or individual benefits. Exposure of equipment operators and people in immediate vicinity may be significant especially from 2-stroke engines; health benefits of cleaner engines should be stressed.

- o See also impacts for transportation measures.

Sense of Community

- o See Physical Mobility and Public Health and Safety

Urban Patterns

- o Same as noted for transportation measures

Plan Implementation

recommendations

Plan Implementation recommendations

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 1 THE INITIAL ENVIRONMENTAL MANAGEMENT PLAN SHOULD BE IMPLEMENTED AS MUCH AS POSSIBLE BY EXISTING GOVERNMENTAL AGENCIES USING CURRENT AUTHORITY (The Actions to implement this policy have been incorporated into the individual management plans.)								
Policy 2 FEDERAL AND STATE GOVERNMENTS SHOULD MAKE LEGISLATIVE AND ADMINISTRATIVE CHANGES TO CARRY OUT ENVIRONMENTAL MANAGEMENT PLAN RECOMMENDATIONS, AS NECESSARY								
Action 2.1 Provide additional funding for the California Dept. of Health to establish and carry out regulations for commercial and recreational shellfish harvesting in San Francisco Bay.	This recommendation supports Policy 3 and its actions in the Water Quality Management Plan.	California Legislature	As soon as possible	State Constitution	0	0	State budget	ABAG advocacy
Action 2.2 Enact legislation to require existing marinas and harbors to provide on-shore toilet facilities.	This recommendation supports Policy 10 and its actions in the Water Quality Management Plan.	California Legislature	As soon as possible	State Constitution	0	0	State budget	ABAG advocacy
Action 2.3 Unless preempted by Federal law, enact legislation on liability requirements and compensation to minimize water pollution from oil spills.	This recommendation supports Policy 12 and its actions in the Water Quality Management Plan.	California Legislature	As soon as possible	State Constitution	0	0	State budget	ABAG advocacy
Action 2.4 If determined to be necessary by the time of the first annual revision of the Environmental Management Plan, enact legislation requiring cities and counties to revise and update building codes to include water conservation in new construction.	This recommendation supports Policy 2 and its actions in the Water Supply Management Plan.	California Legislature	As soon as possible	State Constitution	0	0	State budget	ABAG advocacy

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 2.5 Enact legislation providing incentives for water conservation in existing buildings and for agricultural water conservation.	This recommendation supports Policy 2 and its actions in the Water Supply Management Plan.	U.S. Congress; California Legislature	As soon as possible	Federal and State Constitutions	0	0	Federal and State budgets	ABAG advocacy
Action 2.6 Enact legislation to promote waste reduction where appropriate and to eliminate the price differentials between primary and secondary materials and products made from them.	This recommendation supports Policies 6 and 8 of the Solid Waste Management Plan.	U.S. Congress; California Legislature	As soon as possible	Federal and State Constitutions	0	0	Federal and State budgets	ABAG, SSWMB, EPA and local governments advocacy
Action 2.7 Provide increased financial support for job retraining programs for workers displaced by new air quality stationary source control.	This recommendation supports Policy 1 in the Air Quality Plan.	U.S. Congress; California Legislature	1979-81 session	Federal and State Constitutions	0	0	Federal and State budgets	ABAG, BAAPCD advocacy
Action 2.8 Provide additional financial support for local transit operators to substantially increase regional transit service as a means of achieving Federal and State air quality standards.	This recommendation supports Policy 3 in the Air Quality Plan.	U.S. Congress; California Legislature	1979-81 session	Federal and State Constitutions	0	0	Federal and State budgets	ABAG and MTC advocacy
Action 2.9 The ABAG Environmental Management Plan has met stringent standards for air quality. It is possible there may be significant economic and social adjustments. Therefore we request Congress to re-examine the no-risk philosophy and requirements of the Clean Air Act to make them reasonable for local governments seeking to comply.		U.S. Congress	1979-81 session	Federal constitution	0	0	Federal budget	ABAG advocacy

Policy 3

PLAN IMPLEMENTATION SHOULD BE ENSURED THROUGH THE TIMELY AND APPROPRIATE COMPLETION OF MANAGEMENT AGREEMENTS AS REQUIRED BY FEDERAL REGULATIONS

Action 3.1 Obtain management agreements to implement the policies and actions of appropriate portions of the Environmental Management Plan.	Federal water quality regulations require assurances that the plan will be implemented and indicate the need to secure such agreements.	ABAG, all implementing agencies.	Following General Assembly approval of the initial plan.	Federal Water Pollution Control Act.	Undetermined	Undetermined	Federal & State grants; local match is required	Required by Federal regulations under 40 CFR 130
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Continuing Planning Process

recommendations

Continuing Planning Process recommendations

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 1 THE PROCESS FOR CONTINUED ENVIRONMENTAL MANAGEMENT PLANNING AND PLAN UPDATE SHOULD BE BASED ON THAT ESTABLISHED FOR THE INITIAL ENVIRONMENTAL MANAGEMENT PLAN								
Action 1.1 Designate ABAG as the lead agency for the Federally required continuing planning process	ABAG would continue its functions as an environmental planning and coordinating agency.	ABAG, State agencies, EPA	1978	Federal Water Pollution Control Act; Clean Air Act; Resource Conservation & Recovery Act; SB 424 (1977)	0	0	-	Federal law requires a continuing planning process
Action 1.2 Establish the required policy advisory body to manage the continuing planning process.	Its size and composition would be determined by the Executive Board.	ABAG	For a period up to two years from the present	ADAG by-laws	\$30,000	\$30,000	Federal & State grants, local match if required	Federal regulation under 40 CFR 130 and 131 require a policy advisory committee.
Action 1.3 Continue joint staff arrangements for air quality planning		ABAG, BAAPCD, MTC, ARB, Caltrans, EPA	ongoing memorandum of understanding in 1978	Clean Air Act as amended	0	0		Section 174, Clean Air Act Amendments of 1977.
Action 1.4 Execute a Memorandum of Understanding to integrate Bay Area water quality planning including the establishment of a joint water quality planning staff similar to that for air quality planning	This staff would be drawn from ABAG and the Regional Water Quality Control Board.	ABAG, San Francisco Bay Regional Water Quality Control Board	1978	Agencies' enabling legislation	Minor administrative cost	Minor administrative cost	Federal & State grants, local match if required	Federal regulations, 40 CFR 130-131 require an integrated process

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 1.5 Execute a Memorandum of Understanding between ABAG and the State Water Resources Control Board	This memorandum would integrate ABAG's grant review function under Circular A-95 with the SWRCB's decision-making responsibilities for 201 wastewater facilities projects.	ABAG, State Water Resources Control Board	1978	Agencies' enabling legislation	minor administrative cost	minor administrative cost	Federal & State grants, local match if required	OMB Circular A-95, Part IV; State Administration Urban Strategy; Clean Water Grant Regulations
Action 1.6 Maintain appropriate technical advisory committees.	They would meet as needed during the continuing planning process.	ABAG, county lead agencies, other committee participants	Ongoing	ABAG by-laws	minor administrative cost	minor administrative cost	Federal & State grants, local match if required	
Action 1.7 Continue the Program Review Board.	ABAG & other agency officials & staff would report on plan update progress.	EPA, SWRCB, RWQCB, ARB, OPR, SSWMB	Ongoing	Agencies' enabling legislation	minor administrative cost	minor administrative cost	Federal & State grants, local match if required	Voluntary on the part of State & Federal agencies
Action 1.8 Continue a broad-based public participation program during the continuing planning process.	Special efforts would be made to involve low-income, minority and age-category groups in the program. Adequate time would be allowed for public review and comment to plan amendments & the annual plan update.	ABAG, and other participating agencies	Ongoing	Federal regulations	\$150,000	\$150,000	Federal & State grants, local match if required	Federal regulations
Action 1.9 Update the EMTF Procedures Manual to guide the continuing planning process for environmental management planning.		ABAG	1978	ABAG by-laws	minor administrative cost	minor administrative cost	Federal & State grants, local match if required	

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 2 THE MAJOR PURPOSE OF THE CONTINUING PLANNING PROCESS SHOULD BE THE YEARLY UPDATE OF THE ENVIRONMENTAL MANAGEMENT PLAN.								
Action 2.1 Include in the annual plan update adopted by the General Assembly, the following items:								
<ul style="list-style-type: none"> o A summary of benefits, costs and progress of plan implementation during the preceding year. o Changes recommended as a result of environmental management actions taken during the preceding year, if necessary. o Revisions that may be appropriate if Federal or State environmental quality standards are changed or if unanticipated technological advances occur. o New policies and actions, including governmental and financial recommendations for implementation as well as an assessment of their economic, social and environmental impacts. o Recommended response to changes by State, Federal and implementing agencies. o Formal action on conditions adopted by State or Federal agencies when approving the preceding year's updated plan. 		ABAG	yearly, starting in 1979	Federal Water Pollution Control Act, Clean Air Act Amendments, Resource Conservation & Recovery Act, AB 424 (1977)	Undetermined	Undetermined	Federal & State grants, local match if required	Federal and State law and regulations
Action 2.2 Take action on appropriate portions of the updated plan								
		MTC, BAAPCD, RWQCB, SWRCB, SSWMB, ARB, EPA, Dept. of Health	yearly, starting in 1979	Enabling legislation	Undetermined	Undetermined	Federal & State budgets	Federal and State law
Policy 3 REGIONAL WATER QUALITY MANAGEMENT PLANNING SHOULD BE CONTINUED								
Action 3.1 Reaffirm water quality objectives for waters of the region. Incorporate the presently adopted objectives for the waters of the region concurrent with approval of the EMP.								
	Water quality objectives designed to protect beneficial uses are the foundation of the water quality management plan. Beneficial use designations and water quality objectives for the region as adopted by SWRCB and RWQCB are shown in Section 8 of that plan. The objectives are identical to current objectives.	ABAG	1978	Federal Water Pollution Control Act and Porter-Cologne Act.	0	0	-	State and EPA review.

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Action 3.2 Establish interim standard for delta outflow to Bay during winter months.	To ensure that sufficient wintertime flood flows enter the bay, it is recommended that an interim standard be established. Research work done by SFBDRAC will be directed at developing a basis for a final standard. The following standard is suggested: o A minimum of 2 million acre-feet of water per year will be reserved for elevated delta outflow. o 1 million acre-feet of this reservation will be released in a five day pulse at the rate of 100,000 cubic feet per second. o The second 1 million acre-feet will be released, immediately following the pulse, at a 10,000 cfs rate over a 50-day period. o These provisions represent a minimum, not a typical, allotment of water. In average-to-wet years, greater quantities of water should be available to elevate delta outflow.	SWRCB	June 1978		0	0		

Action 3.3

Update the water quality element of the EMP

This includes the 20-year project list and the county surface runoff plans.

ABAG, RWQCB, county lead agencies

Annually from 1979

Federal Water Pollution Control Act, Porter-Cologne Act

Undetermined Undetermined

Federal & State grants, local match if required

Required by law

Policy 4

CONTINUED REGIONAL PLANNING FOR WATER SUPPLY SHOULD PRIMARILY REST WITH WATER SUPPLY AGENCIES THROUGH THE WATER MANAGEMENT COORDINATING COUNCIL

The following study tasks are those which the Water Management Coordinating Council is requested to consider:

1. Evaluate the advantages and disadvantages of increased interagency water transfer.
2. Evaluate the costs and benefits of accepting restrictions on water use during droughts.
3. Evaluate need for new water supply projects, including interties, prior to 1985 giving priority to water conservation and reclamation.
4. Prepare a drought contingency plan.
5. Conduct survey of status, use, and plans for all groundwaters in region.
6. Prepare regional groundwater basin management plan.
7. Evaluate the quality of water for domestic use including an examination of the effect of further withdrawals of freshwater from the delta and impacts which percolation of imported water may have on quality of underground water supplies in the region.

Policy 5

CONTINUED PLANNING, AS REQUIRED BY FEDERAL AND STATE LAW, WILL BE NECESSARY FOR SOLID WASTE MANAGEMENT

Action 5.1

Update the regional plan, including municipal wastes, hazardous wastes and wastewater solids.

Update the regional solid waste management plan, incorporating results of ongoing planning activities of other state, regional and local agencies, and including more detailed planning for regional issues.

ABAG

1979 and annually thereafter

Federal Water Pollution Control Act, SB 424 (1977), Resource Conservation and Recovery Act

Costs are included in Action 1.2 of the Solid Waste Management Plan

Federal & State grants, local match if required

Existing EPA and State SWMB requirements will ensure plan update

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 6 REGIONAL AIR QUALITY PLANNING SHOULD BE CONTINUED								
Action 6.1 Update the initial air quality plan to cover other pollutants, including but not limited to sulfur dioxide, carbon monoxide, and particulate matter.	This covers the other pollutants where potentially serious air quality problems exist in the region.	ABAG, BAAPCD, MTC, ARB, Caltrans, cities and counties	October 1978	Clean Air Act as amended	Undetermined	Undetermined	Federal & State grants, local match if required	Clean Air Act as amended
Action 6.2 Review programs made to implement actions to reduce hydrocarbon emissions and determine if reasonable further progress is being made between 1979 and 1982 toward attainment of the Federal oxidant standard.		ABAG, BAAPCD, MTC, ARB, Caltrans, cities and counties	1979 and annually thereafter	Clean Air Act as amended	Undetermined	Undetermined	Federal & State grants, local match if required	Clean Air Act as amended
Action 6.3 Establish a regional industrial siting program for analyzing alternative sites, sizes, production processes and environmental control techniques.	This is required by the Clean Air Act Amendments of 1977 if the region cannot attain the Federal oxidant standard by 1982 and is to be granted an extension to 1987.	ABAG (with RPC involvement), MTC, ARB, Caltrans, cities and counties.	1979	Clean Air Act as amended	Undetermined	Undetermined	Federal & State grants, local match if required	Clean Air Act as amended
Action 6.4 Evaluate and propose procedures other than case-by-case offset for permitting industrial growth, with consideration given to any potential competitive advantages or disadvantages to the region that could result from implementation of such procedures.		ABAG, BAAPCD, ARB, cities and counties.	1979 and annually thereafter	Clean Air Act as amended	Undetermined	Undetermined	Federal & State grants, local match if required	Clean Air Act as amended
Action 6.5 Include in the updated air quality plan a status report on implementation of air quality plans in other non-attainment areas in California and the nation together with recommendations for modifying control measures of the air quality plan if it is demonstrated that the Federal and State governments are not taking all reasonable steps to ensure equitable administration and enforcement of the requirements of the Clean Air Act and applicable California laws and regulations.		ABAG, BAAPCD, MTC, ARB, Caltrans, cities and counties	1979 and annually thereafter	Clean Air Act as amended	Undetermined	Undetermined	Federal & State grants, local match if required	Clean Air Act as amended

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 7 CONTINUED PLANNING REQUIRES THE COMPLETION OF TASKS THAT ARE INTEGRATIVE AMONG THE SEVERAL MANAGEMENT PLANS								
Action 7.1 As control measures are refined and updated, conduct a continuing assessment of their social, economic and environmental effects, and develop mitigation measures as appropriate.		ABAG	Continuous after approval of the initial plan	Federal law	Undetermined	Undetermined	Federal & State grants, local match if required	Required by law
Action 7.2 Develop and propose governmental and financing mechanisms for planning and implementation beyond the first two years following plan approval.		ABAG (L&GO Committee to have lead responsibility.)	June 1979	Adopted by EMTF and its Plan Implementation Committee	Undetermined	Undetermined	Federal & State grants, local match if required	
Action 7.3 Ensure consistency among the management plan elements.		ABAG	Continuous after approval of the initial plan	ABAG by-laws	Undetermined	Undetermined	Federal & State grants, local match if required	
Action 7.4 Examine and develop recommendations for resolving conflicts between energy generation facilities and air quality standards		ABAG (with RPC involvement), BAAPCD, County SWM agencies, energy project proponents.	1979	Agencies' enabling legislation	Undetermined	Undetermined	Federal & State grants, local match if required	

RECOMMENDATIONS	GENERAL DESCRIPTION	RESPONSIBLE AGENCY (OR AGENCIES)	SCHEDULE FOR ACTION	LEGAL AUTHORITY	TOTAL COST/YEAR OF RECOMMENDED ACTION	PORTION OF TOTAL COST/YR. DIRECTLY ATTRIBUTABLE TO THIS PLAN	FINANCING MECHANISM	MEASURES TO ENSURE IMPLEMENTATION
Policy 8 ADEQUATE AND CONSISTENT SOURCES OF FUNDS MUST BE MADE AVAILABLE TO FINANCE THE CONTINUING PLANNING PROCESS, INCLUDING ANNUAL PLAN UPDATE.								
Action 8.1 Give high priority attention to the following sources for financing the continuing planning process: 1) continued funding under the Federal Water Pollution Control Act, 2) funding under the Clean Air Act Amendments of 1977, 3) funding under the Resource Conservation and Recovery Act of 1976.								
		ABAG (Fin. & Pers. Committee to have lead responsibility).	Ongoing	Federal Water Pollution Control Act, Clean Air Act, Resource Conservation and Recovery Act	-	-	-	Federal law required a continuing planning process
Action 8.2 For the period up to two years following approval of the initial pla, use local sources, including local dues to ABAG, primarily to provide the required matching funds for Federal and/or State planning assistance.								
		ABAG	Ongoing	ABAG by-laws, other law governing local sources	-	-	Federal & State grants, local match if required	
Action 8.3 Develop and recommend a long-term program for financing environmental planning and coordination beyond the initial two-year period using a combination of local, State and Federal funds.								
		ABAG (Fin. & Pers. Committee to have lead responsibility);	March 1979	ABAG by-laws	Undetermined	Undetermined	Federal & State grants, local match if required	

Affirmative Action

recommendations



AFFIRMATIVE ACTION POLICIES

Policy 1: Propose to Federal, State and local governments a regional approach for the coordination of the various affirmative action activities which would assist local governments and implementing entities in their efforts to meet affirmative action standards applicable to the Environmental Management Plan.

Action 1.1: Request that the Federal Regional Council and Federal Executive Board participate with ABAG, appropriate State agencies, regional agencies involved in the Environmental Management Plan, and local governments, in developing procedures for the coordination of all grants and contracts awarded by Federal, State and local governments which provide assistance to affected groups (minorities, women, etc.) for business development and manpower training.

The goals of such procedures would be to:

- a. Improve the flow of information regarding minority* business development and manpower training to local governments and implementing agencies charged with meeting Federal, State, and local affirmative action standards.
- b. Simplify and improve coordination of affirmative action efforts by various levels of government which are designed to assist minorities in availing themselves of opportunities created by the inclusion of affirmative action measures in the Environmental Management Plan.
- c. Increase the positive impact on minorities resulting from affirmative action activities, through coordination of those activities with the continuing planning and implementation process of the Environmental Management Plan.

Policy 2: Provide a regional data base that contains pertinent information on current business and employment opportunities as well as future projections on the availability of such opportunities resulting from the implementation of programs and control measures of the Environmental Management Plan.

Action 2.1: Develop methods for centralizing the collection and dissemination of information regarding employment and minority entrepreneurial opportunities which result from Environmental Management Plan activities. This could be done in conjunction with the State Employment Development Department and regionwide, private non-profit organization, and community action agencies.

* For purpose of this policy statement an affected group is also implied in the term minority.

Policy 3: Improve monitoring of affirmative action programs and activities by local governments and implementing agencies that have been assigned responsibilities to carry out the Environmental Management Plan.

Action 3.1: Request by ABAG that cities, counties, special districts and relevant regional agencies each designate appropriate department(s) or individual(s) to be assigned monitoring responsibilities for affirmative action compliance in program or projects implemented in conjunction with the Environmental Management Plan.

Policy 4: Include the affirmative action monitoring units designated by public agencies in the A-95 review process for all Federally funded plans and projects designed to implement the Environmental Management Plan.

Action 4.1: Require ABAG clearinghouse staff to submit to designated department(s) or individual(s) in local and regional agencies, a list of potential regional affirmative action issues and the staff's assessment of the effects of those issues for all Environmental Management Plan projects which require A-95 review. The departments or persons would be invited to comment on the affirmative action implication of the project. Where such comments are negative, ABAG's clearinghouse staff would work with the agency involved to attempt to reduce the potential conflict or would include such comments in the overall assessment of the project.

Policy 5: Include review of progress in meeting affirmative action regulations as an integral part of the annual review of actions taken to carry out the Environmental Management Plan.

Action 5.1: Identify private and public service organizations whose principal activities involve civil rights for minorities or other groups covered by affirmative action requirements (e.g. women, handicapped, veterans, etc.), and whose activities are regional in scope, and include such organizations in the review and evaluation of the impact of regional affirmative action efforts.

Action 5.2: Appoint a regional affirmative action coordinating advisory committee consisting of representatives from the officially designated affirmative action agencies and representatives from regional civil rights and ethnic minority organizations as deemed appropriate--except that in no case would private representatives constitute a majority. This committee would meet periodically with ABAG staff to review progress and advise the regional agency on affirmative action problems of regional significance.

Action 5.3: The coordinating committee, acting as an Affirmative Action Task Force, shall study the affirmative action needs of the region in this critical area of environmental management planning. ABAG staff shall provide sufficient staff support to perform the study. The findings and recommendations shall be presented to the ABAG Executive Board for consideration and action.

Policy 6: Minimize social and economic impacts on minorities.

- Action 6.1: Encourage implementing agencies to consider affirmative action implication of projects. Attention should be given to possible economic and social disruption in communities where high concentration of minorities and poor persons reside. If such projects are necessary, ABAG should encourage and assist local governments in using every effort possible to minimize predictable negative impacts.
- Action 6.2: Provide for an ongoing assessment of the economic and social relationship between housing choices and job location to prevent disproportionate long-distance home-to-job travel by minorities caused by plan recommendations for shifts in land use policy.
- Action 6.3: Eliminate or reduce to an acceptable minimum negative social and economic impacts on housing conditions, costs and patterns. Conduct environmental programs so that potential housing problems and negative housing impacts can be anticipated and eliminated whenever possible through mitigation measures.

Policy 7: When the scarcity of a resource, such as water, requires rationing, encourage the use of per capita allocations as opposed to percentage cutbacks to avoid disproportionate impact on low and moderate income people.

Policy 8: Improve information flow and involvement among minority community in environmental matters.

- Action 8.1: All information regarding the Environmental Management Plan should be provided in languages reflective of the Bay Area's population.

Policy 9: Increase minority career opportunities generated by environmental management programming.

- Action 9.1: Coordinate with the various educational training centers to ensure that information on job opportunities resulting from environmental management are incorporated into these programs.

Section-J

DRAFT 20-YEAR PROJECT LIST OF MUNICIPAL WASTEWATER FACILITIES

Included on this list are projects to meet Bay Area municipal waste treatment needs for the next 22 years. The Federal Water Pollution Control Act Amendments of 1972 require that this list be part of the plan required by Section 208 of that law. After this Environmental Management Plan is approved by the State and the Environmental Protection Agency, Federal law requires that the Administrator of EPA shall not make any grant for construction of publicly owned treatment facilities under Section 201 of the FWPCA, except for those facilities in conformance with the 208 plan.

ALAMEDA COUNTY

FISCAL YEAR (AND ASSIGNED STEPS)

^aStep 1 - Facilities planning; Step 2 - Preparation of plans and specifications; Step 3 - Construction.
^bProject groups and priorities as defined by State Water Resources Control Board (SWRCB) Clean Water Grant Program Regulations.
 In October, 1977, the Governor signed an Executive Order calling for tripling the amount of water recycled in the State within five years.
 This Order is likely to result in expediting all of these reclamation and reuse projects and adding other projects to this list.
 Preliminary analysis indicates that all of these projects scheduled for 78-79 are consistent with the EMP. All other projects will be analyzed on a project by project basis in the continuing planning process.
^c*This 20-year project list is based on the high population projection (6.1 million people by the year 2000). Projects with two asterisks would be deleted if the low projection occurs (5.4 million people by the year 2000).

ALAMEDA COUNTY (Continued)

ALAMEDA COUNTY (Continued)			FISCAL YEAR (AND ASSIGNED STEPS)																										
Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps ^a	Priority Group ^b	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001	
East Bay Dischargers Authority	0868	Control System	1- 2- 3- 2,000,000	I			3																						
East Bay Dischargers Authority	0868	Alvarado Treatment Plant and Pump Station	1- 2- 3- 37,730,000	I			3																						
East Bay Dischargers Authority	0868	Filters at Hayward and San Leandro to meet secondary requirements	1- 2- 3- 11,000,000	I			3																						
East Bay Dischargers Authority		Oro Loma - Castro Valley solids handling facilities	1- 4,000 2- 22,000 3- 220,000	I				1		2																			
East Bay Dischargers Authority		Oro Loma - Castro Valley wet weather facilities	1- 40,000 2- 200,000 3- 2,000,000	II					1		2																		
East Bay Dischargers Authority		Hayward Plant expansion	1- 120,000 2- 1,200,000 3- 12,000,000	III																									
East Bay Dischargers Authority	1428	Wastewater reclamation project	1- 2- 1,000,000 3- 10,000,000				2																						
East Bay Dischargers Authority	1428	Wastewater reclamation project	1- 2- 2,000,000 3- 20,000,000					2																					

ALAMEDA COUNTY (Continued)

Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps ^a	Priority Group ^b	FISCAL YEAR (AND ASSIGNED STEPS)																							
					77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001
Castro Valley S.D.		Castro Valley collection sewers	1- 40,000 2- 150,000 3- 2,810,000	III					1		2																	
CLAVMA	1572	Facilities plan for wastewater reclamation in Livermore-Amador area	1- 195,000 2- 3-	I	1																							
City of Livermore	1429	Livermore plant expansion, possible wastewater reclamation project	1- 64,000 2- 640,000 3- 5,700,000	I	1					2																		
City of Livermore		Land acquisition for expansion of reclamation	1- 5,000 2- 50,000 3- 2,070,000	IV						1																		
City of Livermore		Land acquisition and spray irrigation facilities	1- 60,700 2- 607,400 3- 6,074,500	IV							1																	
Dublin San Ramon Services District	1125	Plant expansion to consolidate with Pleasanton	1- 2- 3- 3,300,000	I																								
Dublin San Ramon Services District		Plant expansion	1- 15,000 2- 150,000 3- 1,500,000	I						1																		
City of Pleasanton	1082	Pleasanton transport facilities to VCSD for treatment	1- 2- 3- 2,600,000	I																								
**East Bay Dischargers Authority		Union S.D. plant expansion and possible upgrading	1- 120,000 2- 1,200,000 3- 10,800,000	III				1		2																		
**East Bay Dischargers Authority		San Leandro plant expansion	1- 20,000 2- 200,000 3- 2,000,000	I																		1			2			
**City of Livermore		Plant expansion	1- 45,000 2- 450,000 3- 4,500,000	III										1														

CONTRA COSTA COUNTY

Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps ^a	Priority Group ^b	FISCAL YEAR (AND ASSIGNED STEPS)																							
					77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001
West County Agency Joint Powers Agreement (Richmond-San Pablo)	1154	Construction of Point Richmond outfall	3- 8,500,000	1		3																						
West County Agency Joint Powers Agreement (Richmond-San Pablo)	1154	Construction of Richmond STP miscellaneous improvements	3- 3,500,000	1		3																						
West County Agency Joint Powers Agreement (Richmond-San Pablo)	1154	Construction of San Pablo effluent pump station	3- 1,600,000	1		3																						
West County Agency Joint Powers Agreement (Richmond-San Pablo)	1154	Construction of San Pablo to Richmond force main	3- 9,000,000	1		3																						
West County Agency Joint Powers Agreement (Richmond-San Pablo)	1154	Design of San Pablo wet weather facilities, treatment plant rehabilitation & solids handling	2- 2,500,000	1		2																						
West County Agency Joint Powers Agreement (Richmond-San Pablo)	1154	Construction of San Pablo STP wet weather facilities and sludge lagoons	3- 18,000,000	1		3																						
West County Agency Joint Powers Agreement (Richmond-San Pablo)	1154	Construction of San Pablo Treatment Plant modifications	3- 2,000,000	1		3																						
West County Agency Joint Powers Agreement (Richmond-San Pablo)	1154	Design of Richmond Treatment Plant wet weather facilities plant modification & infiltration/inflow corrections	2- 2,000,000	1		2																						
West County Agency Joint Powers Agreement (Richmond-San Pablo)	1154	Construction of Richmond STP wet weather facilities	3- 10,000,000	1		3																						
West County Agency Joint Powers Agreement (Richmond-San Pablo)	1154	Construction of Richmond Treatment Plant modifications	3- 12,000,000	1		3																						
West County Agency Joint Powers Agreement (Richmond-San Pablo)	1154	Construction of Richmond collection system rehabilitation to eliminate excessive infiltration/inflow	3 8,000,000	1		3																						

CONTRA COSTA COUNTY (Continued)

Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps ¹	Priority Group ²	FISCAL YEAR (AND ASSIGNED STEPS)																							
					77-	78-	79-	80-	81-	82-	83-	84-	85-	86-	87-	88-	89-	90-	91-	92-	93-	94-	95-	96-	97-	98-	99-	2000-
					78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	2000	2001
City of Richmond		Collection system improvements	1- 2- 3- 8,000,000	III											1 2 3													
West Contra Costa Sanitary District	1443	Wastewater reclamation facilities	1- 2- 240,000 3- 2,000,000	I																								
West Contra Costa Sanitary District		Collection system improvements in El Sobrante	1- 2- 100,000 3- 500,000	III																								
West Contra Costa Sanitary District		Solids disposal and energy recovery facilities	1- 100,000 2- 2,000,000 3- 10,000,000	I				1																				
City of Pinole	1577	Plant modifications for Pinole-Hercules	1- 2- 3- 300,000	I																								
City of Pinole	1577	Plant expansion	1- 2- 200,000 3- 2,700,000	III																								
City of Pinole	1577	Transport and disposal facilities for Pinole-Hercules	1- 2- 3- 4,000,000	I																								
City of Hercules		Wastewater recycling project testing	1- 2- 90,000 3- 750,000	N/A																								
Rodeo Sanitary District	1164	Rodeo Sanitary District Treatment Plant modifications and outfall extension	1- 2- 3- 2,000,000	I																								
Rodeo Sanitary District		Rodeo Sanitary District plant expansion	1- 50,000 2- 200,000 3- 2,000,000	I																								
Rodeo Sanitary District		Collection sewers improvements and expansion	1- 10,000 2- 40,000 3- 300,000	III																								
Rodeo Sanitary District		Solids handling facilities	1- 20,000 2- 80,000 3- 600,000	III																								

CONTRA COSTA COUNTY (Continued)

FISCAL YEAR (AND ASSIGNED STEPS)

Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps ^a	Priority Group ^b	77-73	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001
Mt. View Sanitary District	1241	Facilities necessary to comply with NPDES dechlorination and 10:1 dilution requirements	1- 20,000 2- 100,000 3- 1,000,000	I		1 2		3																				
Mt. View Sanitary District		Elimination of bypasses and overflows	1- 14,000 2- 31,000 3- 355,000	III				1		2		3																
Contra Costa County Sanitary District No. 5	1242	Port Costa upgrading treatment to secondary level	1- 2- 18,000 3- 228,000	I		2		3																				
Contra Costa County Sanitary District No. 5		Collection sewers	1- 3,000 2- 5,000 3- 42,000	III				1		2		3																
Central Contra Costa Sanitary District (C.C.C.S.D.)	1000	C.C.C.S.D. secondary plant expansion	1- 2- 77,000 3- 5,694,000	I		2 3																						
C.C.C.S.D.	1269	C.C.C.S.D. solids disposal and energy recovery facilities - stage 1	1- 2- 1,000,000 3- 15,860,000	I		2		3																				
C.C.C.S.D.		C.C.C.S.D. solids disposal and energy recovery facilities- stage 2	1- 250,000 2- 2,100,000 3- 32,729,000	I	1			2		3																		
C.C.C.S.D.		Sewage collection and transport, treatment and disposal for Orinda	1- 60,000 2- 260,000 3- 5,380,000	III			1 2 3																					
City of Concord		Collection sewers (Stage II)	1- 36,000 2- 181,650 3- 1,816,500	III				1		2		3																
City of Concord		Collection sewers (Stage III)	1- 2- 179,800 3- 1,789,500	III						2		3																
Contra Costa County Sanitation District No. 7A	1002	C.C.C.S.D. No. 7A subregional facilities	1- 2- 3- 31,000,000	I			3																					
Contra Costa County Sanitation District No. 7A		Collection sewers	1- 14,000 2- 31,000 3- 355,000	III				1		2		3																
Contra Costa County Sanitation District No. 7A		Sludge disposal facilities	1- 10,000 2- 30,000 3- 400,000	I			1		2		3																	

CONTRA COSTA COUNTY (Continued)

			FISCAL YEAR (AND ASSIGNED STEPS)																									
Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps ^a	Priority Group ^b	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001
Contra Costa County Sanitation District No. 7A		Expansion of secondary treatment and sludge disposal facilities	1- 100,000 2- 3-	III								1																
												Unscheduled																
												Unscheduled																
Contra Costa County Sanitation District No. 7A		Wastewater reclamation facilities	1- 150,000 2- 900,000 3-14,000,000	IV					1		2			3														
Contra Costa County Sanitation District No. 7A		Relief facilities for conveyance system	1- 100,000 2- 500,000 3-11,600,000	III													1		2				3					
Oakley Sanitary District-- C.C.C.S.D. No. 15	1416	Oakley Sanitary District plant improvements; transport facilities from C.C.C.S.D. No.15 (Bethel Island) to Oakley for wastewater treatment	1- 2- 3- 5,500,000	I			3																					
Oakley Sanitary District-- C.C.C.S.D. No. 15		Expansion of secondary treatment and effluent disposal facilities; relief of conveyance system; addition of sludge processing and disposal facilities	1- 30,000 2- 3-	III								1																
												Unscheduled																
												Unscheduled																
City of Brentwood	1415	Brentwood treatment plant expansion	1- 2- 3- 1,000,000	I									1															
City of Brentwood		Expansion of secondary treatment and effluent disposal facilities; addition of sludge processing and disposal facilities	1- 15,000 2- 3-	III			3																					
C.C.C.S.D. No. 19		Evaporation-percolation ponds and flood protection	1- 20,000 2- 200,000 3- 2,200,000	III				1																				
								2																				
								3																				
C.C.C.S.D. No. 19		Expansion of evaporation-percolation ponds	1- 2,000 2- 3-	III																								
Contra Costa County Water District		Expansion of the ion exchange softening plant for reclaimed wastewater (from 15 mgd to 30 mgd)	1- 50,000 2- 150,000 3- 1,300,000	IV			1		2		3																	
Contra Costa County	1514	Facilities plan for countywide septage study	1- 25,000 2- 3-	I		1																						
Contra Costa County		Sand Hill wastewater management facilities	1- 16,000 2- 38,000 3- 446,000	III				1		2																		
											3																	
Contra Costa County		East Contra Costa County treatment facilities expansion	1- 10,000 2- 100,000 3- 1,000,000	I														1		2								
**C.C.C.S.D.		C.C.C.S.D. secondary plant expansion and upgrading to advanced treatment	1- 48,000 2- 480,000 3- 48,000,000	I								1		2														

MARIN COUNTY

Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps ^a	Priority Group ^b	FISCAL YEAR (AND ASSIGNED STEPS)																							
					77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001
Richardson Bay Sanitary District		Collection sewers	1- 8,000 2- 31,000 3- 461,000	I		1 2 3																						
City of Sausalito		Collection sewers	1- 3,000 2- 5,000 3- 42,000	III				1		2	3																	
City of Mill Valley		Collection sewers	1- 10,000 2- 19,000 3- 201,000	III				1		2	3																	
City of Mill Valley	1409	Reclamation facilities	1- 2- 40,000 3- 400,000	I		2 3																						
Homestead Valley Sanitary District		Collection sewers	1- 7,000 2- 13,000 3- 130,000	III				1		2	3																	
Marin County Sanitation District No. 1		Collection sewers	1- 30,000 2- 85,000 3- 1,085,000	III				1		2	3																	
Las Gallinas Valley Sanitary District and Marin Municipal Water District	1256	Reclamation facilities	1- 2- 3- 1,100,000	I		3																						
Las Gallinas Valley S.D.		Collection sewers	1- 35,000 2- 105,000 3- 1,460,000	III					1	2	3																	
Novato Sanitary District	1058	Subregional treatment and transport facilities for South Sonoma/Eastern Marin-Phase I	1- 2- 2,300,000 3- 27,400,000	I		2 3																						
Novato Sanitary District	1058	Subregional treatment and transport facilities for South Sonoma/Eastern Marin - Phase II	1- 2- 2,300,000 3- 27,400,000	I		2 3																						
Novato Sanitary District	1058	Subregional treatment and transport facilities for South Sonoma/Eastern Marin - Phase III	1- 2- 2,400,000 3- 27,500,000			2	3																					
Novato Sanitary District		Treatment facilities expansion in eastern Marin	1- 22,000 2- 220,000 3- 2,200,000	I										1 2														
Marin Municipal Water District and Marin County Water District No. 1	1257	Reclamation facilities -- lower Ross Valley	1- 2- 3- 220,000	I		3																						
Marin County		Wastewater management in unsewered areas of San Geronimo Valley	1- 35,000 2- 140,000 3- 2,025,000	III					1	2	3																	

MARIN COUNTY (Continued)

Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps	Priority Group ^h	FISCAL YEAR (AND ASSIGNED STEPS)																							
					77-	78-	79-	80-	81-	82-	83-	84-	85-	86-	87-	88-	89-	90-	91-	92-	93-	94-	95-	96-	97-	98-	99-	2000-
					78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	2000	2001
North Marin County Water District	1313	Olema and Point Reyes National Seashore Headquarters treatment and land disposal facilities	1- 2- 80,000 3- 1,000,000	I	2 3																							
North Marin County Water District	1285	Point Reyes Station treatment and disposal facilities	1- 2- 80,000 3- 1,000,000	I	2 3																							
Stinson Beach County Water District	1207	Sewage management for unsewered areas	1- 2- 100,000 3- 1,000,000	I		2 3																						
Bolinas Community PUD		Sewage management for unsewered areas	1- 50,000 2- 3-	III					1																			
California Dept. of Parks and Recreation		Muir Beach collection, treatment, and disposal facilities	1- 30,000 2- 85,000 3- 1,085,000	I				1		2	3																	
California Dept. of Parks and Recreation	1317	Angel Island State Park interceptor sewer and land disposal facilities	1- 2- 100,000 3- 750,000	I		2 3																						

NAPA COUNTY

Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps	Priority Group	FISCAL YEAR (AND ASSIGNED STEPS)																							
					77-	78-	79-	80-	81-	82-	83-	84-	85-	86-	87-	88-	89-	90-	91-	92-	93-	94-	95-	96-	97-	98-	99-	2000-
					78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	2000	2001
City of Calistoga		Collection sewer	1- 10,000 2- 21,000 3- 228,000	III				1		2	3																	
City of Calistoga	0789	Reclamation	1- 2- 20,500 3- 215,350	I	2	3																						
Napa Sanitary District and Carneros Water District	1437	Facilities plan for reclamation potential	1- 2- 200,000 3- 4,500,000	I		2	3																					
Napa Sanitation District		Collection sewer	1- 30,000 2- 185,000 3- 2,835,000	III				1		2	3																	
City of St. Helena	1316	Upgrading treatment and complying with Basin Plan objectives	1- 2- 66,000 3- 1,400,000	I		2	3																					
City of St. Helena		Thomas Lane interceptor	1- 4,000 2- 6,000 3- 60,000	III				1		2	3																	
Napa County	1314	Treatment and/or transport for unsewered Community-Edgerly Island	1- 2- 31,000 3- 461,000	I		2	3																					
Napa County	1314	Collection system for unsewered community - Edgerly Island	1- 2- 30,000 3- 470,000	III		2	3																					
Napa County	1525	Facilities plan for countywide septage study	1- 25,000 2- 3-	I		1																						
Napa County		Collection and treatment system for unsewered area of Angwin	1- 30,000 2- 120,000 3- 2,150,000	III					1	2	3																	

SAN FRANCISCO

FISCAL YEAR (AND ASSIGNED STEPS)

Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps ^a	Priority Group ^b	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001
San Francisco City and County	1252	Ocean outfall	1- 2- 3- 100,000,000	I				3																				
San Francisco City and County	1253	West Side pump station	1- 2- 3- 40,000,000	I				3																				
San Francisco City and County	1253	West Side transport - Phase I	1- 2- 3- 70,000,000	I				3																				
San Francisco City and County	1253	West Side transport - Phase II	1- 2- 7,500,000 3- 37,500,000	I				2		3																		
San Francisco City and County	1253	West Side transport - Lake Merced	1- 2- 5,000,000 3- 50,000,000	I (unscheduled) (unscheduled)																								
San Francisco City and County	1289	Southwest dry weather primary and secondary plant - Phase I	1- 2- 10,000,000 3- 60,000,000	I			2	3																				
San Francisco City and County	1289	Southwest dry weather primary and secondary plant - Phase II	1- 2- 3- 125,000,000	I				3																				
San Francisco City and County	1399	Islais Creek pump station and storage facilities	1- 2- 5,000,000 3- 100,000,000	I				2		3																		
San Francisco City and County	1399	Sunnydale/South Basin facilities	1- 2- 5,000,000 3- 100,000,000				2	3																				
San Francisco City and County	1399	North-South highlevel crosstown transport-Stage I	1- 2- 5,000,000 3- 100,000,000	I				2		3																		
San Francisco City and County	1399	North-South Highlevel Crosstown transport - Stage II	1- 2- 5,000,000 3- 100,000,000	I						2		3																
San Francisco City and County	1399	Channel Basin facilities	1- 2- 8,000,000 3- 80,000,000	I																								
San Francisco City and County	1315	Long Cabin Ranch School treatment plant additions	1- 6,000 2- 8,000 3- 63,000	I																								
San Francisco City and County		Wastewater solids management facilities	1- 2- 3,000,000 3- 30,000,000	I			2	3																				
Port of San Francisco		Collection sewers	1- 12,000 2- 24,000 3- 264,000	III																								

SAN MATEO COUNTY					FISCAL YEAR (AND ASSIGNED STEPS)																									
Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps a	Priority Group b	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001		
South Bayside System Authority		Facilities plan for wastewater reclamation	1- 30,000	I		1																								
South Bayside System Authority		Wastewater reclamation project for industrial use and landscape irrigation	1- 2- 150,000 3- 3,000,000	IV				2 3																						
South Bayside System Authority		Subregional plant expansion	1- 50,000 2- 350,000 3- 8,000,000	III					1																					
City of Redwood City		Facilities plan for reclamation	1- 30,000	IV		1																								
City of Redwood City		Wastewater reclamation project for landscape irrigation	1- 2- 206,000 3- 3,364,000	IV				2 3																						
City of Redwood City		Collection sewers near Emerald Lake Hills	1- 8,000 2- 75,000 3- 658,000	III				1		2		3																		
Menlo Park Sanitary District		Sewage management for Portola Valley and Woodside	1- 50,000 2- 3-	I		1																								
Menlo Park Sanitary District		Wastewater reclamation	1- 2- 130,000 3- 2,500,000	IV	1			2 3																						
City of San Mateo	1445	Facilities plan for reclamation potential	1- 10,000 2- 30,000 3- 600,000	IV				1 2 3																						
City of San Mateo		Collection system repairs	1- 60,000 2- 600,000 3- 5,340,000	III				1 2 3																						
Cities of San Mateo and Foster City		Plant expansion	1- 20,000 2- 180,000 3- 5,000,000	III		1 2		3																						
City of Foster City		Wastewater reclamation project re-using treated wastewater within Foster City	1- 28,000 2- 3-	I	1																									
North Bayside System Unit		Facilities plan for wastewater reclamation	1- 20,000	I		1																								
North Bayside System Unit Agency		Wastewater reclamation project for industrial use	1- 2- 280,000 3- 6,000,000	IV				2 3																						

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SAN MATEO COUNTY (Continued)

FISCAL YEAR (AND ASSIGNED STEPS)

Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps ^a	Priority Group ^b	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001
City of Millbrae	1440	Pump station and interceptor	1- 15,000 2- 11,000 3- 126,000	III		1 2																						
City of Millbrae		Facilities plan for wastewater reclamation	1- 5,000	IV																								
City of Millbrae		Reclamation facilities	1- 2- 50,000 3- 500,000	IV																								
City of Burlingame	1444	Facilities plan for reclamation potential	1- 2- 10,000 3- 100,000	I																								
City of Burlingame		Construction of trunk sewers to control wet weather flow	1- 25,000 2- 35,000 3- 300,000	III																								
San Francisco International Airport		San Francisco Airport plant improvement to meet requirements	1- 20,000 2- 280,000 3- 6,000,000	I																								
San Francisco International Airport		Facilities plan for wastewater reclamation	1- 20,000	IV																								
San Francisco International Airport		Wastewater reclamation project re-using treated wastewater for landscape irrigation within the Airport	1- 2- 280,000 3- 10,000,000	IV																								
Town of Colma	1441	Sewage interceptor system	1- 2- 54,000 3- 932,000	III																								
Bayshore Sanitary District		Facilities plan for wastewater reclamation	1- 35,000	I																								
Bayshore Sanitary District		Wastewater reclamation project	2- 70,000 3- 950,000	IV																								
North San Mateo County S.D.	1439	Facilities plan for ultimate subregional sludge disposal	1- 25,000 2- 3-	I																								
North San Mateo County S.D.	917A	Reclaimed wastewater outfall- Stage I	1- 2- 70,000 3- 685,000	I																								

SAN MATEO COUNTY (Continued)

Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps ^a	Priority Group ^b	FISCAL YEAR (AND ASSIGNED STEPS)																									
					77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001		
North San Mateo County S.D.		Reclaimed wastewater outfall Stage II	2- 300,000 3- 2,943,000	I		2																								
North San Mateo County S.D.		North San Mateo C.S.D. plant expansion	1- 20,000 2- 200,000 3- 2,000,000	I														1		2										
City of Pacifica		Infiltration/inflow study and necessary sewer repairs to eliminate by-passing and overflows of untreated sewage	1- 80,000 2- 200,000 3- 1,800,000	III				1			2																			
City of Pacifica		Wastewater reclamation project for landscape irrigation	1- 30,000 2- 3-	IV		1																								
City of Pacifica		Pacifica plant expansion	1- 20,000 2- 200,000 3- 2,000,000	I				1			2																			
Sewer Authority Mid-Coastside	1022	Subregional facilities for Half Moon Bay, Montara, and Granada	1- 2- 3- 5,600,000	I																										
Sewer Authority Mid-Coastside	1022	Ocean outfall	1- 2- 3- 600,000	I		3																								
San Mateo County	1436	Collection system for Emerald Lakes Hills	1- 2- 580,000 3- 5,300,000	I							2																			
San Mateo County		Wastewater management for unsewered areas-- Cuesta La Honda	1- 30,000 2- 120,000 3- 2,150,000	III																										
San Mateo County		Wastewater management for unsewered areas-- Redwood Terrace	1- 10,000 2- 36,000 3- 554,000	III																										
San Mateo County		Wastewater management for unsewered areas-- Woodside Highland	1- 15,000 2- 65,000 3- 1,120,000	III																										
San Mateo County		Wastewater management for unsewered areas-- Stonegate	1- 10,000 2- 36,000 3- 554,000	III																										
San Mateo County		Wastewater management for unsewered areas-- Los Trancos Woods	1- 30,000 2- 120,000 3- 2,150,000	III																										

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SAN MATEO COUNTY (Continued)		Estimated Cost by Steps ^a	Priority Group ^b	FISCAL YEAR (AND ASSIGNED STEPS)																									
Implementing Agency	Project No. (SWRCB)			Description of Project	77- 78	78- 79	79- 80	80- 81	81- 82	82- 83	83- 84	84- 85	85- 86	86- 87	87- 88	88- 89	89- 90	90- 91	91- 92	92- 93	93- 94	94- 95	95- 96	96- 97	97- 98	98- 99	99- 2000	2000- 2001	
San Mateo County		Wastewater management for unsewered areas-- Paloma Park	1- 40,000 2- 165,000 3- 3,195,000	III									1 2 3																
San Mateo County		Wastewater management for unsewered areas-- Arrowhead Meadows	1- 15,000 2- 65,000 3- 1,120,000	III									1 2 3																
San Mateo County		Wastewater management for unsewered areas-- Alpine Hills	1- 20,000 2- 90,000 3- 1,590,000	III									1 2 3																
San Mateo County		Wastewater management for unsewered areas-- Woodside Hills	1- 30,000 2- 280,000 3- 2,490,000	III									1 2 3																
San Mateo County		Wastewater management for unsewered areas-- Vista Verde	1- 20,000 2- 90,000 3- 1,590,000	III									1 2 3																
San Mateo County		Wastewater management for unsewered areas-- unincorporated areas in Skylonda	1- 20,000 2- 90,000 3- 1,590,000	III									1 2 3																
San Mateo County		Wastewater management for unsewered areas-- Canada Road	1- 10,000 2- 36,000 3- 554,000	III									1 2 3																
**City of Burlingame		Burlingame plant expansion	1- 40,000 2- 400,000 3- 4,000,000	I													1			2								3	

SANTA CLARA COUNTY

FISCAL YEAR (AND ASSIGNED STEPS)

Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps ^a	Priority Group ^b	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001
City of Palo Alto	1076	Solids handling facilities	1- 2- 110,000 3- 2,000,000	I		2 3																						
City of Palo Alto		Process control and data management system	1- 2- 3- 270,000	III		3																						
City of Palo Alto		Plant expansion	1- 40,000 2- 3-																									
City of San Jose		Collection system repairs	1- 50,000 2- 222,000 3- 2,225,000	III				1		2	3																	
City of San Jose		Facilities for reclamation--landscape golf course and agricultural irrigation	1- 2- 100,000 3- 1,000,000			2 3																						
City of Santa Clara	1438	Northside pump station and force main enlargement	1- 12,000 2- 120,000 3- 1,200,000	III				1		2	3																	
City of Santa Clara		Collection sewers	1- 16,000 2- 37,000 3- 427,000	III				1		2	3																	
City of Santa Clara		Reclamation project	1- 12,000 2- 121,000 3- 1,212,300	IV				1 2 3																				
Cupertino S.D. and City of Santa Clara		Interceptor sewer	1- 35,000 2- 130,000 3- 1,835,000	III				1		2	3																	
Milpitas S.D.		Collection sewers	1- 18,000 2- 42,000 3- 490,000	III				1		2																		
Cities of San Jose and Santa Clara	1381	Solids handling facilities and sludge disposal facilities	1- 2- 2,000,000 3- 30,000,000	I		2 3																						
Santa Clara Valley Water District and Cupertino S.D.	1433	Facilities plan for reclamation project	1- 70,000 2- 3-	I	1																							

SANTA CLARA COUNTY (Continued)

FISCAL YEAR (AND ASSIGNED STEPS)

Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps ^a	Priority Group ^b	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001
^c Santa Clara Valley Water District		South Santa Clara Valley water reuse study -- joint subregional project	1- 500,000			1																						
^c Santa Clara Valley Water District	1403	Joint water reclamation project between Milpitas S.D. and Santa Clara Valley W.D.	1- 2- 650,000 3- 6,500,000	I		2		3																				
Santa Clara Valley Water District		Evaluation of expanded salt water intrusion barrier for South Bay	1- 20,000 2- 3-	I		1																						
Santa Clara Valley Water District		Design and construction of expanded salt water intrusion barrier for South Bay	1- 2- 30,000 3- 425,000					2 3																				
South Bay Dischargers Authority	1135	Subregional interceptor and outfall	1- 2- 3,600,000 3- 70,000,000	I		2 3																						
Santa Clara County S.D. No. 4		Lake Canyon and Montevina collection sewers	1- 8,000 2- 16,000 3- 166,000	III				1		2	3																	
City of Morgan Hill		Interceptor from Morgan Hill to Gilroy	1- 35,000 2- 130,000 3- 1,835,000	III				1	2	3																		
City of Gilroy	1019	Gilroy-Morgan Hill joint secondary plant	1- 2- 3- 7,300,000	I		3																						
City of Gilroy		Plant expansion	1- 20,000 2- 200,000 3- 2,000,000	I				1	2	3																		
Santa Clara County		Wastewater management for unsewered areas -- San Martin	1- 12,000 2- 3-	(unscheduled) (unscheduled)					1																			
^{**} Cities of San Jose and Santa Clara		Primary treatment facilities addition	1- 7,000 2- 70,000 3- 702,000	III				1	2	3																		
^{**} Cities of San Jose and Santa Clara		Expansion of advanced treatment facilities	1- 78,500 2- 784,600 3- 846,000	I				1	2	3																		

SOLANO COUNTY				FISCAL YEAR (AND ASSIGNED STEPS)																										
Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps	Priority Group	77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001		
City of Benicia		Pump station rehabilitation and provision of standby power	1- 12,000 2- 24,000 3- 264,000	I				1		2	3																			
Vallejo Sanitation and Flood Control District (VS&FCD)	1573	Facilities plan for wastewater reclamation	1- 2- 150,000 3- 1,500,000	I			2 3																							
Vallejo Sanitation and Flood Control District		Collection sewers	1- 75,000 2- 750,000 3- 8,000,000	III				1	2	3																				
Vallejo S&FCD, Napa Sanitary District and American Canyon Sanitary District	1268	Solids management facilities	1- 2- 100,000 3- 2,500,000	I			2 3																							
Fairfield-Suisun Sewer District	1430	Addition of solids handling capacity at sub-regional plant	1- 100,000 2- 400,000 3- 9,000,000			1	2 3																							
Fairfield-Suisun S.D. and Solano Irrigation District		Wastewater reclamation	1- 100,000 2- 600,000 3- 6,000,000	I		1		2 3																						
City of Fairfield		Fairfield-Suisun subregional tertiary plant expansion	1- 100,000 2- 400,000 3- 9,000,000	I		1 2		3																						
Solano County	1535	Facilities plan for countywide septage study	1- 25,000 2- 3-	I		1																								
Solano County		Wastewater management for unsewered area -- Glen Cove	1- 30,000 2- 120,000 3- 2,150,000	III				1 2 3																						
Solano County		Wastewater management for unsewered area--Green Valley, Suisun Valley, Cordelia	1- 160,000 2- 640,000 3-14,200,000	III				1 2 3																						
Solano Irrigation District		Facilities plan for additional wastewater disposal facilities	1- 100,000	I				1																						
Solano Irrigation District		Additional wastewater disposal facilities	2- 600,000 3- 6,000,000	IV		(unscheduled) (unscheduled)																								

SONOMA COUNTY

Implementing Agency	Project No. (SWRCB)	Description of Project	Estimated Cost by Steps ^a	Priority Group ^b	FISCAL YEAR (AND ASSIGNED STEPS)																							
					77-78	78-79	79-80	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-2000	2000-2001
Sonoma Valley County S.D.	0834	Sonoma Valley C.S.D. secondary plant improvements and expansion	1- 2- 3- 13,400,000	I			3																					
Sonoma Valley County S.D.		Effluent outfall and storage	1- 2- 3- 10,900,000	I			3																					
Sonoma Valley County S.D.		Jack London Country Club Estates collection system	1- 12,000 2- 24,000 3- 264,000	III					1	2	3																	
Sonoma Valley County S.D.		Kenwood collection system	1- 35,000 2- 130,000 3- 1,835,000	III					1	2	3																	
Sonoma Valley County S.D.		Sonoma Valley C.S.D. plant expansion	1- 50,000 2- 500,000 3- 5,000,000	I												1		2	3									
^c Sonoma Valley County S.D.		Construction of storage, pipeline and irrigation distribution system	1- 250,000 2- 2,600,000 3- 23,800,000	IV								1	2	3														
City of Petaluma		Expansion of irrigation system	1- 6,000 2- 57,000 3- 500,000	III										1	2	3												
City of Petaluma		Petaluma plant expansion	1- 50,000 2- 500,000 3- 5,000,000	I											1	2	3											
Sonoma County		Collection system westerly of the Petaluma city limits	1- 30,000 2- 100,000 3- 1,370,000	III																								
Sonoma County		Collection system for Petaluma Blvd., Bailey Ave., Gossage Ave., Jessie Lane and Skillman Lane	1- 15,000 2- 150,000 3- 1,500,000	III																								
<u>Regional</u>																												
Regional reclamation and reuse of waste-water management group	1432	Regional reclamation facility	1- 2- 35,000,000 3- 800,000,000	IV																								

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